

# Module E

## Advance Refundings

### Overview

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<b>Introduction</b>	Module C of Phase I of this course provided a basic overview of both current and advance refundings. This module discusses only advance refundings, but does so in greater detail. You will find that although the general prohibitions and limitations of advance refundings are fairly straightforward, the arbitrage rules are very complicated.
<b>What is a Refunding Issue?</b>	The precise definition of a “refunding issue” can be found in Treas. Reg. section 1.150-1(d)(1). Under this definition, a refunding issue is an issue of debt obligations the proceeds of which are used to pay principal of, or interest or redemption price on, another issue of bonds. The definition also provides that the proceeds of the refunding issue may be used for issuance costs, accrued interest, capitalized interest on the refunding issue, a reserve or replacement fund, or any similar costs that are properly allocable to that refunding issue.
<b>When is Refunding Issue NOT a Refunding Issue?</b>	<p>Treas. Reg. section 1.150-1(d)(2)(ii) states that an issue is NOT a refunding issue to the extent that the obligor of one issue is neither the obligor of the other issue nor a related party with respect to the obligor of the other issue. In general, the “obligor” of an issue is the actual issuer of the bonds.</p> <p>The text discusses this concept at length in Module G.</p> <p>Other examples of issues which are NOT refundings are in also in Treas. Reg. section 1.150-1(d)(2).</p>
<b>Purpose of a Refunding</b>	<p>An issuer would consider refunding an outstanding issue for either (or both) of the following reasons:</p> <ul style="list-style-type: none"><li>• debt service savings, and/or</li><li>• elimination of restrictive covenants.</li></ul>

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## Overview, Continued

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### **Debt Service Savings**

A significant drop in interest rates after issuance of the original bonds can result in debt service savings provided the original bonds are redeemed with the proceeds of the refunding issue as soon as possible. This is so even though the face amount of the refunding issue is necessarily greater than the outstanding amount of the refunded issue. The size of the refunding issue is greater than the refunded issue because the yield on the refunding issue will be lower than the yield on the refunded issue, and the issuer has to use part of the principal to pay interest on the issue until redemption. However, once the refunded bonds are redeemed, the lower interest costs associated with the refunding bonds should compensate for the increase in principal amount.

This transaction is similar to refinancing a mortgage except that the prior bonds are not paid off immediately like the first mortgage would be.

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### **Elimination of a Restrictive Covenant**

Occasionally, issuers must agree to certain operating covenants in order to sell their bonds. One of the most common is to maintain a specific fixed payment coverage ratio. This ratio measures an entity's ability to meet all of its fixed payments, such as principal and interest payments on debt and lease payments by comparing earnings with these fixed payments. The lower the ratio, the more risk is involved. Upon issuance, an issuer may agree to maintain a ratio of earnings to fixed payments of, say, 2.0. After a few years, the issuer may want to issue new debt for other projects but is prohibited from doing so because it would not be able to maintain this ratio. Therefore, the issuer will refund the bonds to eliminate this requirement.

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### **Defeasance**

The refunding of a bond issue is usually considered to be a true defeasance transaction. This means that there is a release of:

- any liens on assets or revenues of the issuer which secure the prior issue, and
- any covenants of the issuer regarding the prior issue.

In place of the revenues which secured the issue, the issuer establishes an escrow account funded with Treasury obligations. The earnings on these obligations and the obligations themselves are expected to pay the debt service on the prior bonds. At the same time, the revenues which were dedicated to paying debt service on the prior bonds are now used to pay debt service on the refunding issue.

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## Overview, Continued

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### Statutory Provisions and Regulations

Various sets of rules which govern advance refundings. The general rules that define and limit advance refundings are in IRC section 149(d) and the accompanying regulations. Certain definitions are in Treas. Reg. section 1.150-1(d). The arbitrage rules are in Treas. Reg. section 1.148-9. Specific anti-abuse rules for advance refundings are in Treas. Reg. section 1.148-10. Other provisions, such as IRC sections 146 and 147, may also apply.

In addition, whenever a bond is issued **after** August 15, 1986 to advance refund a bond issued **before** August 15, 1986, the Transition rules of Section 1313(b) of the Tax Reform Act of 1986 need to be consulted.

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### Objectives

At the end of this lesson, the student will be able to:

- Explain the general rules of IRC section 149(d) regarding advance refundings.
  - Identify instances when the provisions of IRC sections 146 and 147 apply to advance refunding issues.
  - Determine the effect of the TRA 1986 Transition rules on the refunding issue.
  - Describe the common funds in an advance refunding issue.
  - Describe the various forms of advance refundings.
  - Identify the gross proceeds and proceeds of an advance refunding issue.
  - Define transferred proceeds.
  - Compute the amount of proceeds transferring from the prior issue to the refunding issue.
  - Explain how the universal cap affects transferred proceeds of an advance refunding issue.
  - Apply the multipurpose allocation rules when allocating proceeds, costs, and bonds of a multipurpose issue.
  - Explain the mixed escrow rules.
  - Determine the temporary periods for gross proceeds of advance refundings.
  - Determine the yield on a class of investments.
  - Determine if an issue has met an exception to rebate.
  - Determine the proper treatment of prior issue proceeds.
  - Describe abusive arbitrage devices and the rules designed to curb them.
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# Part I: Introduction to Advance Refundings

## Section 1: General Rules

### Overview

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#### Introduction

IRC section 149(d) and the accompanying regulations provide the general rules for advance refundings. These rules:

- define advance refundings,
- limit the types of bonds which may be advance refunded,
- limit the number of times that a bond can be advance refunded,
- provide specific redemption rules, and
- prohibit abusive transactions.

The Transition rules of TRA 1986 provide requirements which, if met, allow post-1985 bonds to refund pre-1986 bonds. Although both current and advance refundings are provided for in the Transition rules, only those rules governing advance refundings are discussed in this module.

Generally, IRC section 146 regarding the volume cap does not apply to advance refundings.

Only certain provisions of IRC section 147 apply to advance refundings.

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## General Provisions of IRC Section 149(d)

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### **Time Limitation of Advance Refundings**

IRC section 149(d)(5) provides that a bond shall be treated as issued to advance refund another bond if it is issued more than 90 days before the redemption of the refunded bond.

#### **Example**

County A issues bonds in the amount of \$20M at 8% in 1987. The bonds are callable in 1997 and mature in 2017. The debt service on the bonds will be paid from revenues from the project. In 1990 tax-exempt interest rates fall to 5% and County A issues bonds to advance refund these original bonds. These bonds are callable in 2000 and mature in 2010. The proceeds of the refunding issue will be dedicated to the payment of debt service on the original bonds until they are redeemed in 1997. Because the refunding issue is issued more than 90 days before redemption of the original issue, it is treated as an advance refunding.

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### **Permitted Types of Refunded Bonds**

IRC section 149(d)(2) provides that qualified 501(c)(3) bonds are the only type of private activity bonds that can be advance refunded. Of course, governmental bonds can also be advance refunded.

#### **Example**

In 1991, City B issues \$40M of bonds at 9% and loans the proceeds to Hospital B, a 501(c)(3) organization. In 1994, the bonds are advance refunded by a \$40M issue at 3%. In 1996, Hospital B loses its exempt status effective January 1, 1991 because it engaged in political activity. No remedial action was taken. Both bond issues are taxable as of the date of issuance.

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## General Provisions of IRC Section 149(d), Continued

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### **Limitations on the Number of Permitted Advance Refundings**

IRC section 149(d)(3)(A)(i) provides that if the original bond was issued after 1985, it can be advance refunded only once.

If the original bond was issued before 1986, it can be advance refunded twice.

For purposes of this rule, IRC section 149(d)(6) provides that:

- refundings issued before 1986 are treated as advance refundings only if they are issued more than 180 days before the redemption of the refunded bond, AND
- if the original bond was issued before 1986, regardless of the number of times it was advance refunded before March 15, 1986, only one counts.

### **Example**

City Q has outstanding bonds which were issued in 1990. The bonds are callable in 2000. In 1995, the bonds are advance refunded. Neither the original bonds (nor the refunding bonds) can be advance refunded again, even after 2000 when only the 1995 bonds are outstanding.

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### **Taxable Refundings**

If an issuer has already used the permitted number of tax-exempt advance refundings, but still wishes to advance refund an issue a taxable advance refunding issue can be an option.

For purposes of IRC section 149(d)(3)(A)(i), Treas. Reg. section 1.149(d)(1)(e) provides that:

- taxable advance refunding issues are not counted, AND
  - an advance refunding of a taxable issue is not counted unless the taxable issue is a conduit loan of a tax-exempt conduit financing issue.
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## General Provisions of IRC Section 149(d), Continued

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### Taxable Refundings, continued

#### **Example**

City Y has outstanding bonds issued in 1992, callable in 2002. In 1997, City Y issues tax-exempt advance refunding bonds, callable in 2007. In 1999, City Y wants to advance refund the 1997 bonds, but is prohibited from doing so by IRC section 149(d)(3)(A)(i)(I). Therefore, in 1999, City Y advance refunds the 1997 bonds using taxable advance refunding bonds, callable in 2009. These taxable bonds are not counted for purposes of IRC section 149(d)(3)(A)(i)(I).

City Y could issue a current refunding of the taxable issue, but not until 90 days before the 1997 bonds are called in 2007. (Not 90 days before the 1992 bonds are called.)

Further, the taxable issue cannot ever be advance refunded with tax-exempt bonds, even after both of the tax-exempt issues have been redeemed.

#### **Example**

In 1990, City B issues bonds using the proceeds to construct a convention center. The bonds are callable in 2000. In 1992, City B issues tax-exempt bonds to advance refund the 1990 bonds. These bonds are callable in 2002. In 1995, City B borrows funds from City X's pooled bonds ("tax-exempt conduit financing issue") in a taxable financing to advance refund the 1992 bonds. Final payments on this loan are due in 2005 ("conduit loan.") City B cannot advance refund the taxable issue, even after the 1992 bonds are redeemed. According to Treas. Reg. section 1.149(d)-1(e), because the taxable issue is a conduit loan of a tax-exempt conduit financing issue, any advance refundings will be counted. How can the pooled financing issue be tax-exempt if one or all of the conduit loans are taxable issues?

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## General Provisions of IRC Section 149(d), Continued

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### **Limitations of Taxable Refundings**

However, Treas. Reg. section 1.149(d)(1)(e)(2) provides that a taxable issue will be counted if it is issued to avoid the limitations of IRC section 149(d)(3)(A)(i).

For example, if a taxable advance refunding issue is used to refund a tax-exempt issue, and is, in turn, currently refunded with a tax-exempt issue, the taxable advance refunding issue is counted if the two tax-exempt issues are outstanding concurrently for more than 90 days.

### **Example**

City M issues tax-exempt bonds in 1986, callable on December 1, 1996. On December 1, 1995, City M issues taxable bonds to advance refund the 1986 bonds. These bonds are callable on December 1, 2005. City M issues tax-exempt current refunding bonds on September 1, 1996. Because the tax-exempt issues are not outstanding concurrently for longer than 90 days, the 1996 bonds are tax-exempt. If the 1996 bonds were issued prior to September 1, 1996, then the 1995 bonds would be counted as the one permitted advance refunding of the 1986 bonds, effectively making the 1996 bonds taxable.

### **Example**

City R issues tax-exempt bonds in 1989. The first call date is June 1, 1999. In 1995, City R advance refunds the 1989 bonds with tax-exempt bonds, callable in 2005. In 1997, City R advance refunds the 1995 bonds with a taxable issue, callable in 2007. In 1998, City R wants to advance refund the taxable issue using tax-exempt bonds, but is prohibited from doing so by Treas. Reg. section 1.149(d)(1)(e)(2), because the 1995 bonds and the proposed 1998 bonds cannot be outstanding concurrently for longer than 90 days. (What about the 1989 bonds?). Until the 1995 bonds are redeemed, the only tax-exempt bonds that City R can issue are current refunding bonds. Once the 1995 bonds are redeemed, the City could advance refund the taxable issue using tax-exempt bonds. (This seems to violate the limitations of 149(d)(3)(A)(i))

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## General Provisions of IRC Section 149(d), Continued

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### **Redemption Rules**

IRC section 149(d)(3)(B)(i) provides that the following rules apply ONLY if the issuer may realize present value debt service savings in connection with the refunding issue.

1. IRC section 149(d)(3)(A)(ii) provides that if the refunded bonds were issued before 1986, it must be redeemed not later than the earliest date on which such bond may be redeemed at par or at a premium of three percent or less.
2. IRC section 149(d)(3)(A)(iii) provides that if the refunded bonds were issued after 1985, it must be redeemed not later than the earliest date on which such bond may be redeemed.

IRC section 149(d)(3)(B)(ii) provides that for purposes of the above rules, the earliest date referred to cannot be earlier than the 90<sup>th</sup> day after the issuance date of the refunding bond.

### **Example**

County A issued \$10M of 20-year 7% bonds in 1987. The bonds are callable in 1997. On January 1, 1997, \$5.5M of principal is outstanding. In 1997 the county advance refunds the bonds with an issue of \$6.3M 10-year bonds at 3%. Since the refunding results in a savings of debt service, the 1987 bonds must be redeemed at the first call date. This should not be a problem for the issuer, as it is in its best interest to refund the bonds as soon as possible anyway.

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### **Abusive Transactions**

IRC section 149(d)(4) provides that the interest on a refunding bond which employs an abusive device will NOT be tax-exempt. An abusive device is employed if a material financial advantage (based on arbitrage) is obtained, aside from savings attributable to lower interest rates.

Abusive devices and the anti-abuse rules are discussed in Treas. Reg. sections 1.149(d)-1(b) and 1.148-10 and are discussed later in this module.

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# TRA 1986 Transition Rules

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## **Introduction**

Transition rules are particularly important in the tax-exempt bond area. This is largely because of the many different sets of regulations that have been issued over the years. Most new legislation and regulations apply to bonds issued after a certain effective date. This practice has particular importance because most tax-exempt legislation has resulted in stricter rules. Accordingly, determining when refunding issues are “grandfathered” from new stricter rules is a very common and very important issue.

The effective date and transition rule question arises for new regulations as well as new legislation. In general, most of the major tax-exempt bond acts since 1980 have contained detailed transition rules. Perhaps the most important transition rules are contained in sections 1312 and 1313 of the Tax Reform Act of 1986. These sections generally permit refundings to be grandfathered from new use rules, but NOT from new arbitrage rules.

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## **Section 1313(b)**

Section 1313(b) of the TRA 1986 provides that the amendments made by section 1301 of the Act (IRC sections 103 and 141-150, with certain exceptions) shall not apply to any bond the proceeds of which are used exclusively to advance refund a bond issued (or which was issued to refund a bond issued ) before August 16, 1986 if:

- the refunded bond is not an industrial development bond or a private loan bond under IRC section 103 of the 1954 Code, AND
  - the average maturity of the issue of which the refunding bond is a part does NOT exceed 120 percent of the average reasonably expected economic life of the facilities being financed with the net proceeds of the issue, OR
  - the refunding bond has a maturity date not later than the date which is 17 years after the date on which the prior bond was issued.
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## TRA 1986 Transition Rules, Continued

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### Section 1313(b), Example continued

On November 1, 1986, City M has outstanding \$9M of a \$10M bond issued on June 1, 1984. The proceeds were loaned to a hospital which is an organization exempt under IRC section 501(c)(3). The hospital used the funds to add an oncology wing to the existing structure. 15 percent of the new wing is leased to a for-profit subsidiary of the hospital, which is well below the private use ceiling of pre-1986 law. The first call date of the bonds is March 1, 1996.

On November 1, 1989, City M issues a \$25M 20-year bond issue. \$11M will be used to advance refund the prior issue, while \$14M will be used for a separate new project. The average maturity of this issue does not exceed 120 percent of the average reasonably expected economic life of the facilities being financed with the net proceeds of the issue.

### Analysis

IRC section 145(a)(2)(B) provides that the private business use of qualified 501(c)(3) bonds issued after August 15, 1986 may not exceed 5 percent. Treas. Reg. section 1.103-7(d)(1) states that the proceeds of a refunding issue are considered to be used for the same purpose as the proceeds of the prior issue. It follows that a refunding bond issued after August 15, 1986 will not be tax-exempt if it refunds a 501(c)(3) bond which does not meet the requirements of IRC section 145(a)(2)(B). Therefore, without the Transition rules of Act section 1313(b), City M could not advance refund the 1984 bonds with tax-exempt bonds.

Act section 1313(b) provides that if certain requirements are met, the amendments made by section 1301 (with certain exceptions) will not apply to the refunding bonds. This allows the 1984 bonds to be advance refunded with tax-exempt bonds. These requirements are met, as follows:

- the 1984 issue is not an issue of industrial development bonds or private loan bonds because the 1954 Code allows 25 percent private use, AND
- the average maturity of the 1989 issue does not exceed 120 percent of the average reasonably expected economic life of the facilities being financed with the net proceeds of the issue.

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## TRA 1986 Transition Rules, Continued

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### Section 1313(b), (continued)

Therefore, the 1989 refunding bonds will be treated as tax-exempt (even though the refunded bonds do not meet all of the amendments made by section 1301 (IRC section 145(a)(2)(B))).

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### Certain Amendments Apply Anyway

However, Act section 1313(b)(3) provides that certain amendments WILL APPLY. Therefore, the 1989 refunding bonds must meet the following amendments of Act section 1301:

- the requirements of IRC section 147(f),
- the requirements of IRC section 147(g),
- the requirements of IRC section 148 (except that section 148(d)(3) shall not apply to proceeds used to discharge the refunded bonds),
- the requirements of IRC sections 149(d)(3) and (4),
- the requirements of IRC section 149(e), AND
- the requirements of IRC section 150(b).

Note that the requirements of IRC section 147(f) and 149(e) apply ONLY if the refunding bonds are issued after December 31, 1986.

Also refer to the special rules below for governmental bonds.

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### \$150 Million Limitation for Nonhospital Qualified 501(c)(3) Bonds

The last sentence of Section 1313(c)(2)(B) provides that the \$150M limitation on nonhospital bonds shall not apply to the first advance refunding after March 14, 1986 of a bond issued before January 1, 1986. Remember that bonds issued before 1986 may be advance refunded twice.

Act section 1313(c)(3) provides, however, that the amount of the refunding bonds counts toward the \$150 million limitation when determining the limitation for later issues.

(Note that the \$150 million limitation was prospectively repealed by the Taxpayer Relief Act of 1997.)

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## TRA 1986 Transition Rules, Continued

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### **Special Rules for Governmental Bonds Issued After August 15, 1986**

Act section 1313(c) provides the following adjustments for certain advance refundings of governmental bonds that refund bonds issued before September 1, 1986: (something to do with c3's)

- IRC sections 147(f) and (g) do not apply,
- IRC section 150(b) does not apply, and
- the bond won't be a private activity bond for 148 and 149(e).

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### **Other Transition Rules**

Act section 1313(b)(5) provides rules regarding the volume cap for refunding bonds if at least five percent of the net proceeds of the refunded bond was used to provide an output facility.

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## Applicability of IRC Section 146 - Volume Cap

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### **Introduction**

You will recall that the only types of bonds that can be advance refunded are:

- qualified 501(c)(3) bonds, and
- governmental bonds.

Also, recall that Treas. Reg. section 1.103-7(d)(1) states that the proceeds of a refunding issue are considered to be used for the same purpose as the proceeds of the prior issue.

IRC section 146 applies only to certain private activity bonds. Therefore, although there are situations in which the volume cap will apply to governmental bonds, generally, governmental bonds are excluded from the volume cap requirements.

Therefore, the only other bonds that concern us at this point are qualified 501(c)(3) bonds, and IRC section 146(g) specifically excludes qualified 501(c)(3) bonds from the volume cap requirements.

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### **General Rules Regarding Refundings and Qualified 501(c)(3) Bonds**

Although IRC section 146(i)(1) provides that certain refundings may be subject to the volume cap, IRC section 146(i)(5) specifically excludes advance refundings from this rule.

Therefore, neither original qualified 501(c)(3) bonds nor bonds issued to advance refund them are subject to the volume cap.

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### **General Exclusion for Governmental Bonds**

IRC section 146(a) excludes governmental bonds simply by referring only to private activity bonds in the general rule

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## Applicability of IRC Section 146 - Volume Cap, Continued

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### Review of IRC sections 141(b)(5) and 146(m)(1)

You will recall from Module J, Phase I of this course that IRC sections 141(b)(5) and 146(m)(1) provide that the issuer of a governmental bond must meet the volume cap when there are certain nonqualified amounts, but which are less than that required to meet the private activity bond tests.

Nonqualified amounts must exceed \$15 million and be equal to the lesser of:

- the proceeds of the issue to be used for ANY private business use, OR
- the proceeds of the issue with respect to which there are payments (or property or borrowed money) described in IRC section 141(b)(2).

Therefore, whenever there are proceeds exceeding \$15 million used for private use or derived from private payments, and this amount is less than that required to meet the private activity bond tests, the amount over \$15 million must be allocated to the volume cap.

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### Volume Cap Allocation for Advance Refundings of Governmental Bonds

IRC section 146(m)(2) provides that when a bond to which a volume cap allocation was required under IRC section 141(b)(5) is advance refunded, the refunding issue must make a similar allocation.

#### **Example**

In 1998, County E issues bonds in the principal amount of \$200M. The bonds are used to build a stadium. A professional sports team contracts for use of the stadium amounting to nine percent of the time and agrees to pay \$20 million for this use. Since nine percent use is less than 10 percent private payment, County E allocates \$3M ( $\$200M \times .09 = \$18M - \$15M$ ) to the volume cap.

In 2003, County E issues bonds to advance refund the 1998 issue. At this time, \$140M of principal remains outstanding. County E allocates \$3M to the volume cap. Specific dollar amount, not 9% based on outstanding amount? Does the amount of this allocation ever change? Not for current refundings.

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# Applicability of IRC Section 147

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## Introduction

Since the provisions of IRC section 147 apply only to certain qualified private activity bonds, they do not apply to governmental bonds. This is true regardless of the issuance date of the refunded bonds.

Applicability to advance refundings of qualified 501(c)(3) bonds depends on the issuance date of the refunded bonds. Remember that according to IRC section 147(h)(2), subsections (a), (c), and (d) do NOT apply to 501(c)(3) bonds, and subsection (e) applies as if it did NOT contain “health club facility.”

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## Advance Refundings of Pre-1986 501(c)(3) Bonds

The TRA 1986 Transition rules (as previously discussed) provide that advance refundings of 501(c)(3) bonds issued before August 16, 1986 must comply with the following subsections of IRC section 147:

- (f), relating to the public approval requirement, AND
  - (g), relating to restrictions on issuance costs.
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## Advance Refundings of Post-1985 501(c)(3) Bonds

Only subsections (b), (f), (g) and portions of (e) of IRC section 147 apply to qualified 501(c)(3) bonds issued after August 15, 1986. Therefore, these provisions will also apply to advance refundings of 501(c)(3) bonds.

### Example

County F issues 20-year bonds in 1990, callable in 2000, and loans the proceeds to Hospital Z. Hospital Z uses the proceeds to build an ambulatory center, the economic life of which is 30 years. In 1999, when the reasonably expected economic life of the building is 21 years, County F issues bonds to advance refund the 1990 bonds. In order to be tax-exempt, the average maturity of these bonds cannot exceed 25.2 years ( $21 \times 1.2$ .)

In addition, the County must obtain public approval of the refunding issue. (Unless the refunding bonds were issued within three years after the date of the first issue pursuant to initial approval. **(See IRC section 147(f)(2)(D))**)

Lastly, issuance costs of the refunding issue must NOT exceed two percent of the proceeds of the issue.

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## Section 2

### Common Funds in an Advance Refunding Issue

#### Overview

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**Introduction** In order to become more familiar with advance refundings, it is necessary to analyze the various types of funds usually established in an advance refunding.

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# Refunding Escrow

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## Introduction

Probably the most significant of the funds in a refunding issue is the refunding escrow. The purpose of this fund is to accumulate funds to be used to pay principal and interest on the refunded issue. Although the refunding escrow is usually funded solely by proceeds of the refunding issue, it can also contain issuer equity, or unspent proceeds of the refunded issue. When the fund consists of funds from various sources, it is called a **mixed escrow**. Special rules apply to mixed escrows, and they will be discussed later in this module.

Treas. Reg. section 1.148-1(b) defines a refunding escrow.

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## Investments in the Escrow Fund

Remember that arbitrage is the investment of tax-exempt proceeds in higher yielding investments in order to take advantage of the difference in the rates. The tax-exempt issuer usually pays a lower rate of interest than that available in the taxable market at any given time. This is where the yield restriction rules come into play. The yield of refunding escrows is restricted to 0.001 percent above the bond yield. Now, when the issuer is contemplating the type of investments to use for the escrow fund, it may be difficult to find an open-market investment with the specific yield required by the issuer.

Recognizing this problem, the Treasury offers a special series of Treasury securities to state and local governments that can be used to invest the funds in the escrow. These special securities are called State and Local Government Securities, commonly known as “SLGs” (pronounced “slugs.”)

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## SLGs Regulations

The Department of the Treasury has published regulations governing US Treasury Certificates of Indebtedness, Notes, and Bonds of the State and Local Government Series. These regulations can be found in 31 CFR Part 344.

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## Refunding Escrow, Continued

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### General Information about SLGs

The purpose of the SLGs is to provide issuers of tax-exempt securities with investments that will enable the issuer to comply with the applicable provisions of the Internal Revenue Code.

SLGs are available to issuers only (not conduit borrowers) in amounts of \$1,000 or more. Time deposits are available for periods ranging from 30 days to a maximum of 40 years. Demand deposits are one-day securities which are rolled over continuously until redemption.

The interest rate on each security is designated by the issuer, but cannot exceed the maximum interest rate. Maximum interest rates are released by the Department daily and can be obtained from any one of four sources listed in the regulations.

Samples of the forms used to subscribe to SLGs are shown in Exhibits E-1 through E-6.

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### Fair Market Value of Investments

Treas. Reg. section 1.148-6(c) provides that gross proceeds will not be allocated to the purchase of a nonpurpose investment to the extent that the purchase price of the investment exceeds its fair market value.

#### **Example**

City A has \$5 million of gross proceeds from an advance refunding issue which it wants to deposit into the refunding escrow. The yield on the bonds is six percent. Rather than purchase SLGs yielding six percent, City A decides to purchase open-market securities from the underwriter at a price in excess of their fair market value. Paying a greater amount for the securities will decrease the yield on the investments. This is called “yield burning.” The underwriter earns the profits that should be paid to the government, making these bonds arbitrage bonds.

Treas. Reg. sections 1.148-5(d)(6)(iv) through (d)(6)(viii) and (e)(2)(iv)(**Proposed**) are designed to curb instances of yield burning.

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# Reasonably Required Reserve or Replacement Fund

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## Introduction

Refunding issues, like new money issues, will generally have a reserve fund. Remember that the escrow fund is pledged to pay debt service on the prior issue, while the debt service on the refunding issue will be paid from project revenues or taxes. Because the source of debt service for the refunding issue is not guaranteed, a reserve fund will usually be established.

All of the following funds may be deposited into a reserve fund, although sale proceeds in excess of 10 percent of the principal amount of the refunding bonds are not permitted by Treas. Reg. section 1.148-2(f)(1):

- refunding bond proceeds,
- unspent proceeds of the prior issue,
- project revenues, OR
- issuer equity.

A **reasonably required reserve fund** (or “4R fund”) is afforded special treatment by the arbitrage regulations, and can be all, or just a part of the reserve fund. It must meet the funding limitation of reserve funds, as well as a size limitation.

However, because of this special treatment, issuers want their reserve funds to be **reasonably required reserve funds**.

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*Continued on next page*

## Reasonably Required Reserve or Replacement Fund, Continued

---

### **Requirements of a Reasonably Required Reserve Fund**

Treas. Reg. section 1.148-9(e) permits proceeds of the refunding issue and the prior issue in a 4R fund to be invested at an unrestricted yield if certain requirements are met. The requirements that must be met are:

- the 10% funding limitation of Treas. Reg. section 1.148-2(f)(1), AND
- the size limitation set forth in Treas. Reg. sections 1.148-2(f)(2) and (3).

You will recall from Phase I, that the size limitation provides that gross proceeds of an issue that make up a 4R fund may NOT exceed the lesser of:

- 10 percent of the stated principal amount of the issue,
- the maximum annual principal and interest requirements on the issue, OR  
125 percent of the average annual principal and interest requirements on the issue.

When determining if the requirements are met for an advance refunding issue, the limits are measured by reference to the refunding issue only.

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*Continued on next page*

## Reasonably Required Reserve or Replacement Fund, Continued

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### Requirements of a Reasonably Required Reserve Fund, continued

#### Example

County G issues 10-year bonds in the principal amount of \$20 million to advance refund a bond issue which still has \$1 million in its 4R fund. County G wishes to deposit as much as possible into the 4R fund of the refunding issue, using both the funds in the prior issue's 4R fund and proceeds of the refunding issue. To determine the maximize size of the 4R fund, County G will use the financial data from the refunding issue only. Assume that the debt service schedule calls for payments of principal and interest of \$2 million each year. To meet the size limitation (and be exempt from yield restriction), the 4R fund cannot exceed \$2 million. To meet the funding limitation, no more than \$2M of refunding bond proceeds can be deposited into the 4R fund.

Among the issuer's options are the following:

- 1.) Use \$1M of prior issue 4R and \$1M of refunding bond sale proceeds for the new 4R fund. Both the funding limit and the size limitation are met.
- 2.) Use \$2M of refunding bond sale proceeds for the new 4R fund, and none of the prior issue 4R fund.
- 3.) Use \$1M of prior issue 4R and \$2M of refunding bond sale proceeds for the new 4R fund. The funding limit is satisfied, however the size limitation is exceeded. \$1M would have to be yield restricted.

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*Continued on next page*

## Reasonably Required Reserve or Replacement Fund, Continued

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### **Not Meeting the Requirements**

Amounts in the 4R fund in excess of the size limitation are not considered a part of the reserve fund. This means only that excess amounts must be yield restricted. However, the fact that the reserve fund is too large does not affect the tax-exempt status of the bonds.

If, however, sale proceeds in excess of 10 percent of the principal amount of the refunding issue are deposited into the reserve fund, then Treas. Reg. section 1.148-1(f)(1) provides that that issue consists of arbitrage bonds. This is true even if the funds are not invested at a yield above the bond yield.

Treas. Reg. section 1.148-1(b) provides that “sale proceeds” include any amounts actually or constructively received from the sale of the issue, including:

- amounts used to pay underwriters’ discount or compensation,
  - accrued interest other than pre-issuance accrued interest, and
  - amounts derived from the sale of a right that is associated with the bond.
-



## Bona Fide Debt Service Fund

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**General Rules**     A bona fide debt service fund is a type of sinking fund which enjoys preferred status under the arbitrage regulations.

The requirements for a bona fide debt service fund for a refunding issue are the same as those for new money issues. Although, this fund usually includes refunding issue proceeds (investment earnings of the reserve fund or other), it may also include project revenues.

The definition of a bona fide debt service fund can be found in Treas. Reg. section 1.148-1(b).

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# Sinking Fund

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## Introduction

According to Treas. Reg. section 1.148-1(c)(2), a sinking fund includes a debt service fund, redemption fund, reserve fund, replacement fund, or any similar fund, to the extent reasonably expected to be used directly or indirectly to pay principal or interest on the issue.

This section has already discussed reasonably required reserve and replacement (4R) funds and bona fide debt service (BFDS) funds, which are types of sinking funds.

However, in an advance refunding, an issuer may establish a sinking fund to accumulate funds to pay off the refunding bonds at redemption. The amounts in a sinking fund are usually characterized as replacement proceeds of the refunding issue and as such, are subject to yield restriction and rebate.

Sinking funds can play a significant role with respect to refunding escrows. This special treatment of sinking funds and refunding escrows will be discussed later in this text when the yield restriction rules are covered.

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## Section 3

### Forms of Advance Refundings

#### Overview

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**Introduction** Before the arbitrage restrictions can be understood, it is helpful to understand the three different forms that an advance refunding may take. Two of these forms are described in the anti-abuse rules on excess gross proceeds of advance refundings in Treas. Regs. section 1.148-10(c).

The first form is by far the most common.

---

**In This Section** This section contains the following topics:

Topic	See Page
Overview	E-27
Net Refunding	E-28
Gross Refunding	E-31
Crossover Refunding	E-34
Summary of Forms of Advance Refundings	E-38

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# Net Refunding

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## Introduction

In a net (or standard) refunding, the proceeds of the advance refunding bonds are used to buy government securities (usually SLGs) and are held in the escrow account. The principal plus the interest to be earned will pay off the prior bonds. The high quality of the securities and the low risk that the escrow will not be able to pay off the prior bonds are enough to make the trustee consider the prior bonds "defeased." This means that the revenue stream that was supporting the debt service on the prior bonds is now released. It now supports the debt service on the advance refunding bonds. The escrow funded by the advance refunding bonds now supports the debt service on the prior bonds. Figure E-1 illustrates a net refunding.

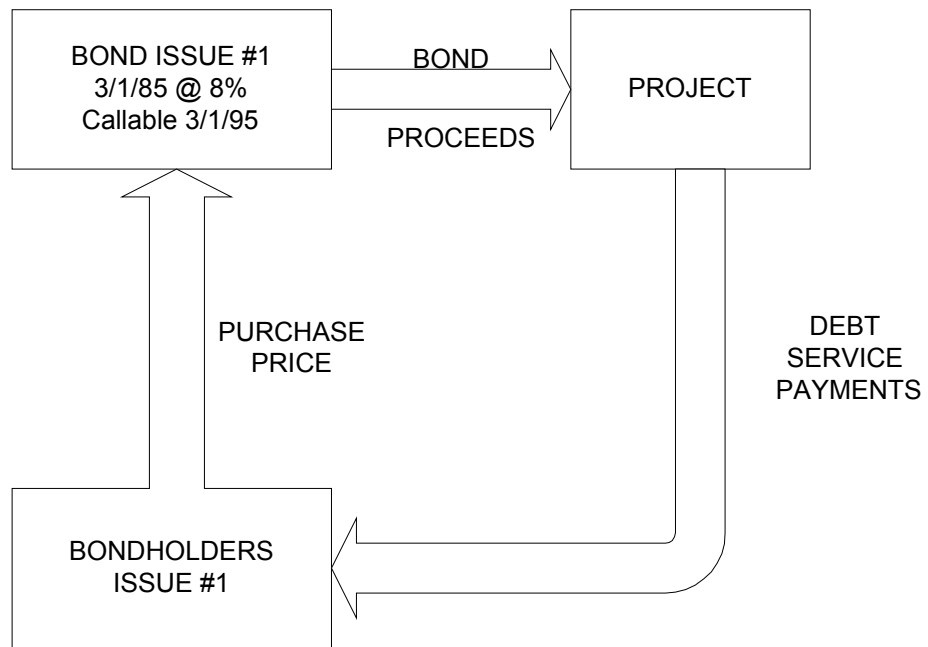
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## Net Refunding, Continued

FIGURE E-1: NET REFUNDING

STEP 1: ISSUANCE OF ORIGINAL BONDS

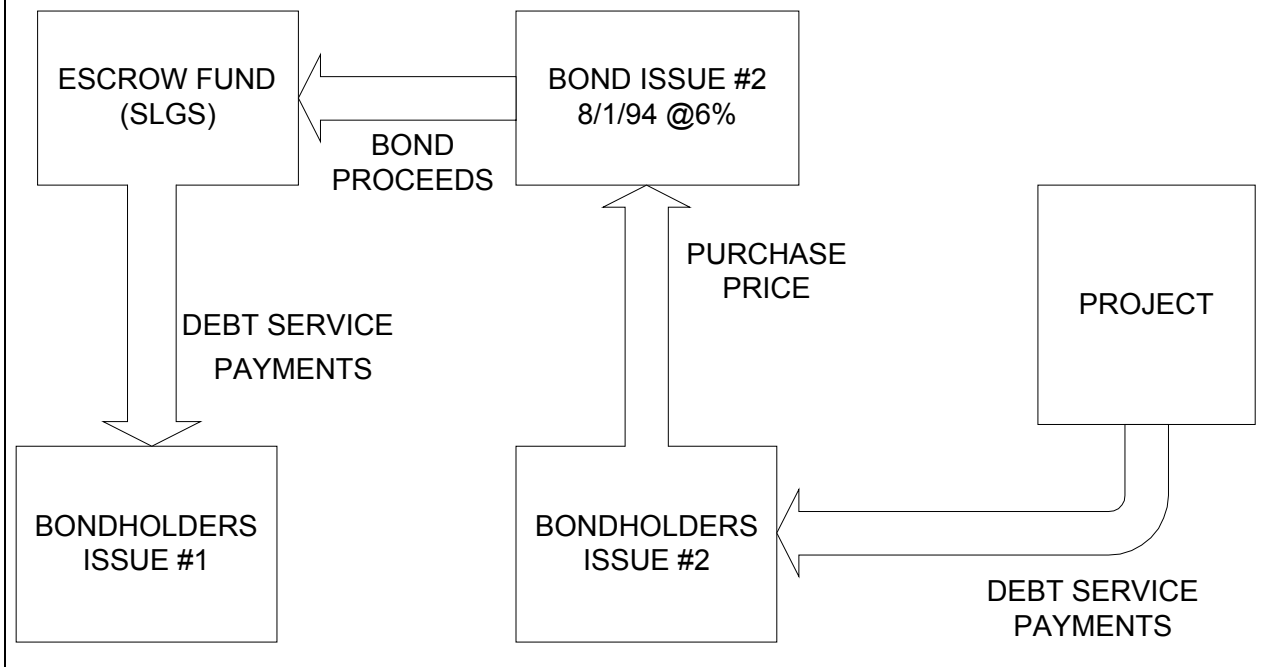


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## Net Refunding, Continued

FIGURE E-1: NET REFUNDING

STEP 2: ISSUANCE OF REFUNDING BONDS



**Claim of bondholders on project revenues is now released, or “defeased”. Revenues are used to pay debt service on the refunding bonds.**

# Gross Refunding

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## Gross (or Full Cash) Refunding

Occasionally, state law or requirements of the trustee of the prior bonds may require that a gross refunding be used. In the net refunding just discussed, the bond documents for the prior bonds authorized the trustee to take the "risk" of defeasing the prior bonds based on the investment earnings of the advance refunding proceeds in the refunding escrow. In a gross refunding, investment earnings on the refunding escrow are not taken into account. Therefore, the full amount needed to pay principal, interest, and call premium of the refunded bonds must be deposited into the escrow account on the issuance date of the refunding bonds. Because there are potential excess gross proceeds, special rules apply gross refundings. These rules can be found in Treas. Reg. section 1.148-1(c)(5). A simple example will show the difference between a net and a gross refunding.

### Example

Suppose City X wants to advance refund a prior bond that pays \$10M in five years, but no interest before then (a "zero coupon bond.") If the city does a net refunding, it needs to issue only about \$6.75M, because this amount will earn an additional \$3.25M if invested for five years at 8%. If the city does a gross refunding, it needs to issue \$10M, because it needs to have on hand currently the full amount to pay off the prior bonds, even though that amount isn't needed for 5 years.

Figure E-2 illustrates a gross refunding.

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## Mechanics of Gross Refundings

In a gross refunding, there are two separate bond issues, the proceeds of which are used to pay debt service on the prior issue:

- Refunding Series A, AND
- Refunding Series B (Special Obligation Bonds).

The interest earned on the escrow funds is used to pay debt service on Series B. The Series B bonds must be retired along with (if not before) the prior issue.

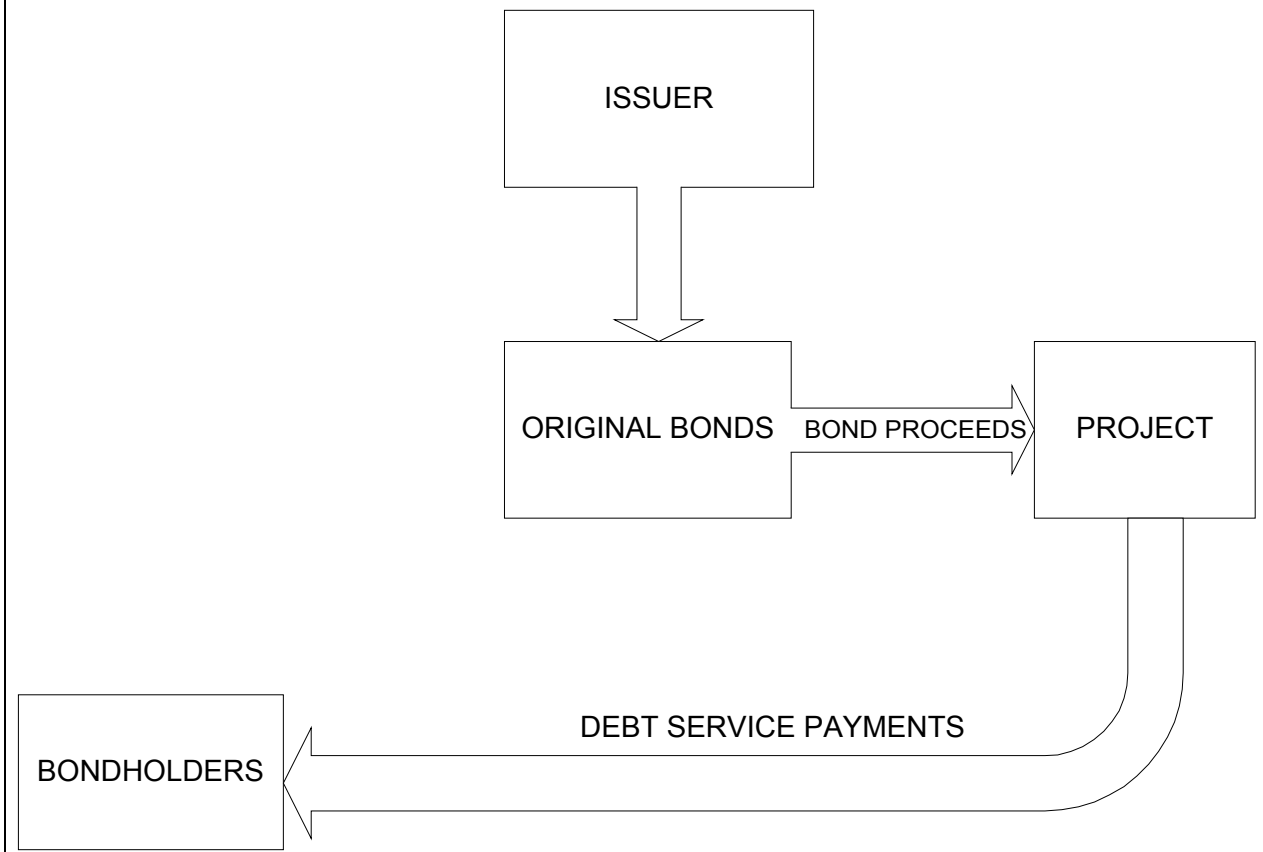
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## Gross Refunding, Continued

FIGURE E-2: GROSS REFUNDING

STEP 1: ISSUANCE OF ORIGINAL BONDS



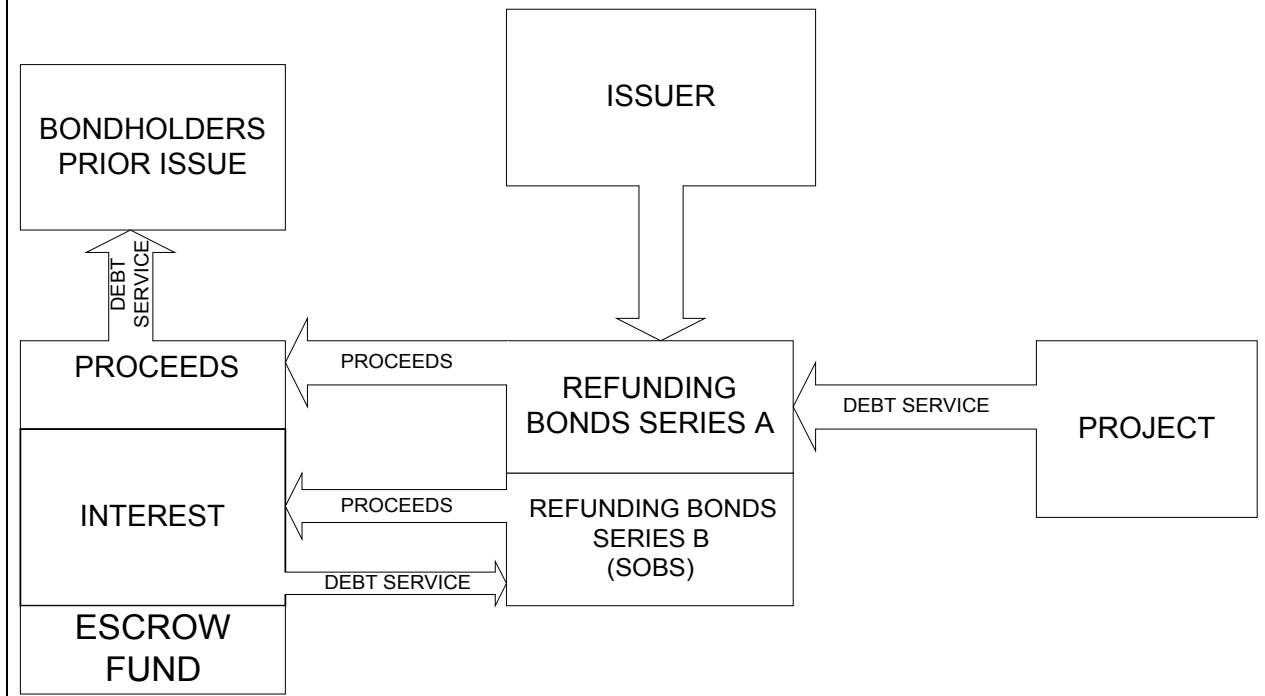
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## Gross Refunding, Continued

FIGURE E-2: GROSS REFUNDING

STEP 2: ISSUANCE OF REFUNDING BONDS



## Crossover Refunding

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**Crossover** This method is similar to the gross refunding because advance refunding bonds in an amount sufficient to fully redeem the prior bonds are issued. In the crossover method, there is no defeasance. For this reason, this method cannot be used to remove burdensome covenants. The prior bonds are redeemed whenever they can be called and the new interest rate then replaces the old. Crossover refundings are not frequently used, but are more common than gross refundings.

Special rules in Treas. Reg. section 1.148-10(c)(4) apply to crossover refundings.

Figure E-3 illustrates a crossover refunding.

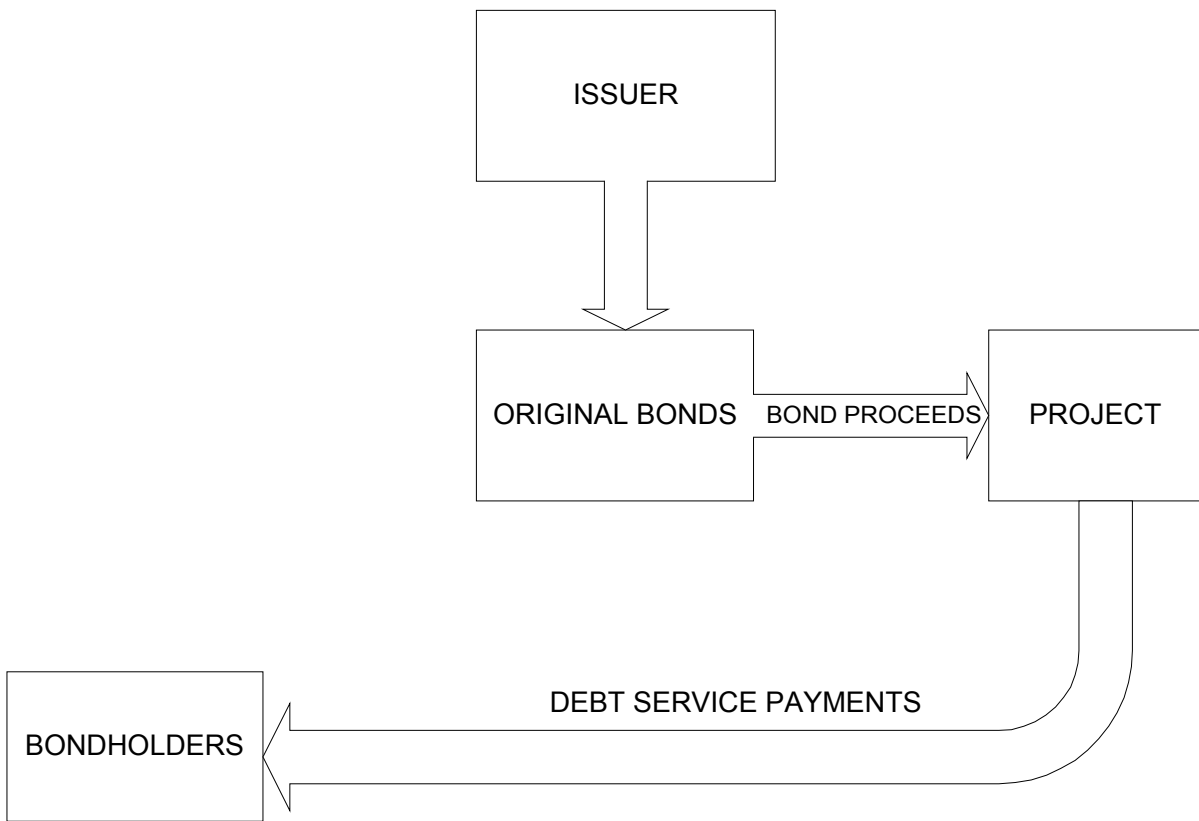
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## Crossover Refunding, Continued

FIGURE E-3: CROSSOVER REFUNDING

STEP 1: ISSUANCE OF ORIGINAL BONDS

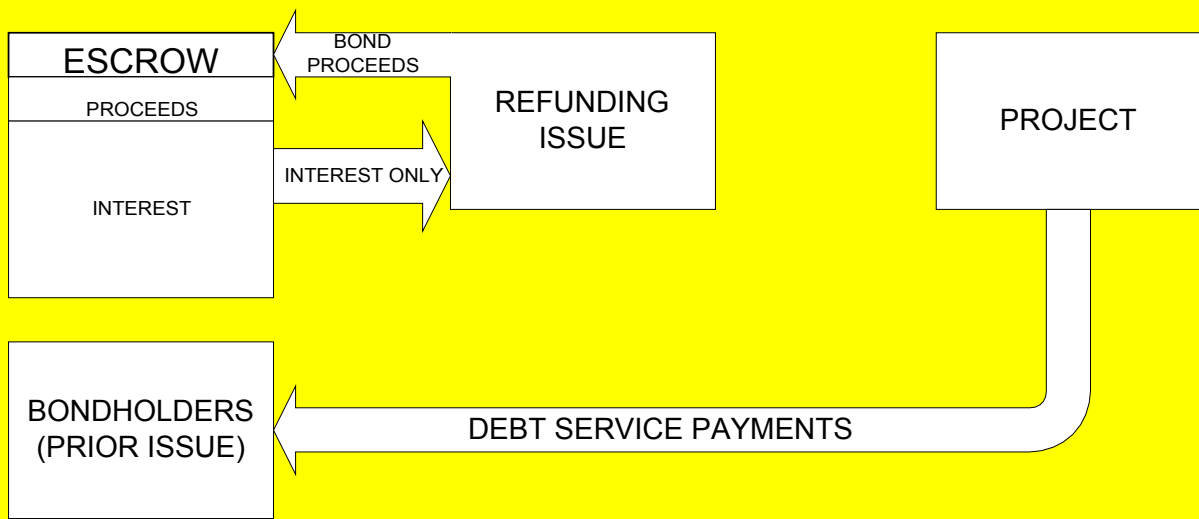


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## Crossover Refunding, Continued

FIGURE E-3: CROSSOVER REFUNDING

STEP 2: ISSUANCE OF REFUNDING BONDS  
(PRIOR TO CROSSOVER DATE)

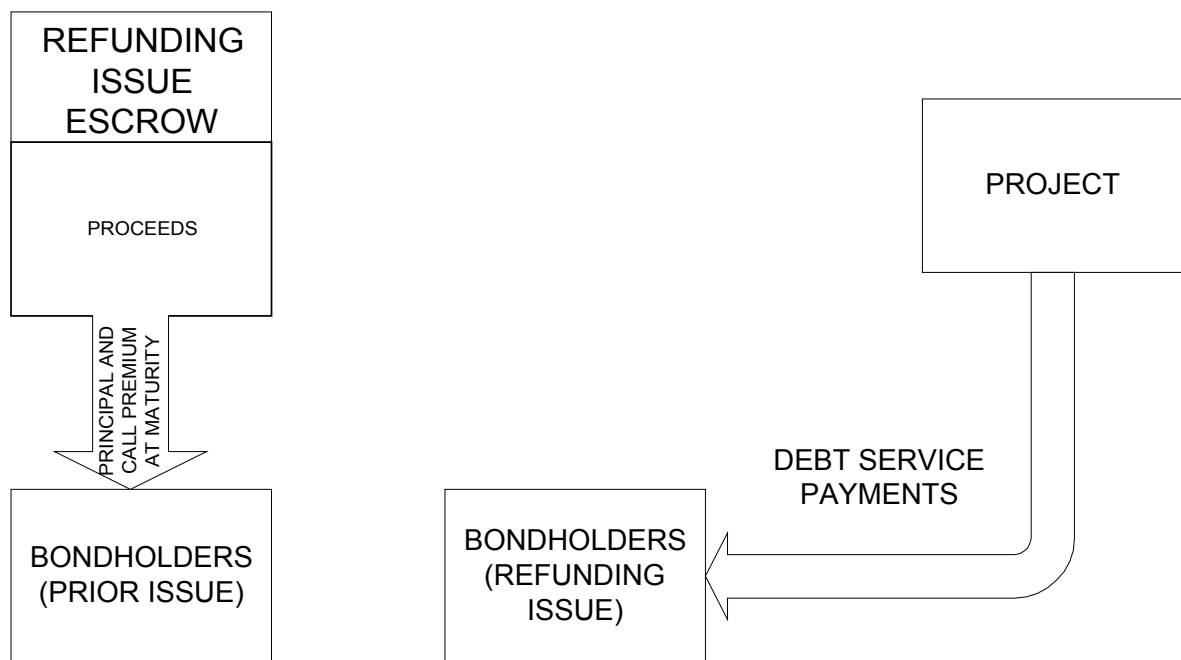


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## Crossover Refunding, Continued

FIGURE E-3: CROSSOVER REFUNDING

STEP 3: ON AND AFTER THE CROSSOVER DATE



## Summary of Forms of Advance Refundings

The table below compares and contrasts the three methods of refundings:

<b>Comparison of the Three Methods of Refundings</b>			
	<b>Net Refunding</b>	<b>Gross Refunding</b>	<b>Crossover</b>
<b>Prior Bonds</b>	Defeased when refunding bonds are issued.	Defeased when refunding bonds are issued.	Redeemed when callable. Not defeased.
<b>Revenue Supporting Prior Bonds</b>	Pays debt service on refunding issue.	Pays debt service on Refunding Series A.	Continues to support prior issue until crossover date. Then pays debt service on refunding issue.
<b>Refunding Proceeds</b>	Pay debt service of prior bonds from issuance date to redemption. Then pay remaining principal and call premium of prior bonds.	Pay debt service of prior bonds from issuance date to redemption. Then pay remaining principal and call premium of prior bonds.	Pay principal and call premium of prior bonds on crossover date. (Cannot be used to pay any interest on the prior bonds.)
<b>Earnings on Escrow</b>	Pay debt service of prior bonds from issuance date to redemption. Then pay remaining principal and call premium of prior bonds.	Pay debt service on Refunding Series B. (SOBS)	Pay the interest on refunding bonds until crossover date.

### Arbitrage Considerations

The remainder of this module discusses arbitrage considerations in advance refundings.

## Part II: Introduction to the Allocation Rules

### Overview

---

#### Introduction

To determine whether or not a bond is tax-exempt, it is necessary to examine the issuer's use of bond proceeds. The use of bond proceeds is a primary factor in determining whether there is compliance with the tax-exempt bond rules. In addition, when determining if an issue has complied with the arbitrage rules, it is necessary to first identify the proceeds of the issue.

Generally, gross proceeds are allocated to an issue and are subject to the yield restriction and rebate rules until an event occurs that allocates the proceeds away, or "deallocates", the proceeds from an issue. Investment in nonpurpose investments does NOT deallocate proceeds, but expenditure for the governmental purposes of the bond does.

These allocation and deallocation concepts become particularly significant in advance refundings because there are two related sets of bonds and two sets of proceeds outstanding simultaneously.

Many of the general allocation and accounting rules which are found in Treas. Reg. section 1.148-6 also apply to advance refunding issues. In addition, some of these rules are supplemented by specific rules which apply only to advance refundings. These supplementary rules are found throughout Treas. Reg. section 1.148-9.

Part III of this module discusses the allocation rules relative to advance refundings.

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*Continued on next page*

## Overview, Continued

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**One-Issue Rule**    Treas. Reg. section 1.148-6(b)(1) provides that gross proceeds can only be allocated to one bond issue at a time.

If amounts simultaneously are proceeds of one issue and replacement proceeds of another issue, those amounts are allocable to the issue of which they are proceeds.

For example, when proceeds of a refunding issue are placed into an escrow fund, these proceeds are both sale proceeds of the refunding issue and replacement proceeds of the refunded issue. However, because Treas. Reg. section 1.148-6(b)(1) provides that the amounts are allocable to the issue of which they are **proceeds**, (rather than **gross proceeds**) these amounts will be treated as proceeds of the refunding issue, rather than replacement proceeds of the refunded issue.

Consider also unspent sale proceeds of a prior issue that are held in a project fund. Upon issuance of advance refunding bonds, assume that these amounts are placed into the BFDS fund of the refunding issue. Although these amounts are sale proceeds of the refunded issue, they are also replacement proceeds of the refunding issue. The one-issue rule provides that these amounts continue to be treated as proceeds of the refunding issue until they are deallocated, as discussed below.

---

**Deallocating Proceeds**    Further, according to Treas. Reg. section 1.148-6(b)(1), these amounts will continue to be treated as proceeds of the refunding issue until the amounts are:

- allocated to an expenditure for a governmental purpose,
- allocated to transferred proceeds of another issue,
- deallocated from the issue because of the universal cap, OR
- deallocated from the issue because the issue is retired.

Sections 1 and 2 of this part will discuss transferred proceeds and the universal cap.

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**Definitions**    Applying the allocation and the arbitrage rules requires an understanding of gross proceeds, proceeds, and replacement proceeds. Therefore, before beginning the allocation rules, let's review these definitions.

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*Continued on next page*



## Overview, Continued

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**Gross Proceeds** The definitions of **gross proceeds** and **proceeds** that are in Treas. Reg. section 1.148-1(b) apply to advance refundings just as they apply to other types of bonds. There are no special rules in any other section of the Code or regulations which define gross proceeds or proceeds differently for advance refundings.

**Gross proceeds** are proceeds plus replacement proceeds.

---

**Proceeds** Generally, **proceeds** means any:

- sale proceeds,
  - investment proceeds, AND
  - transferred proceeds.
- 

**Replacement Proceeds** Generally, **replacement proceeds** are amounts used to pay debt service on bonds.

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**In This Part** This part contains the following topics:

Topic	See Page
Overview	E-39
Section 1: Transferred Proceeds	E-44
Section 2: Universal Cap	E-57
Section 3: Multipurpose Allocation Rules	E-60
Section 4: Mixed Escrow Rules	E-71

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## Section 1

### Transferred Proceeds

#### Overview

---

##### Introduction

Suppose that interest rates have declined and City B decides to advance refund an outstanding bond issue. The yield of the refunding bonds is lower than that of the refunded issue. On the date of issuance of the refunding bonds, the outstanding issue still has unspent proceeds in its project fund. In addition, amounts in the reserve fund are invested in long-term securities. City B establishes an escrow fund to make the debt service payments on the prior issue, restricting the yield of the fund to that of the refunding issue. The unspent proceeds of the prior issue remain invested at a yield based on the yield of the prior issue. Effectively, the city is able to earn a higher yield on invested funds of the prior issue, while using the funds from the refunding issue to make the debt service payments on the prior issue.

Obviously, this situation does not seem to be in accordance with the arbitrage rules. Why should an additional obligation be issued before the city has even spent all of the funds from the prior issue? The proceeds of the prior issue should have been spent for their intended purpose before the new bonds were issued. When they are not spent, you can easily see the advantages to the issuer. Funds from the prior issue continue to be accumulated and invested at a higher yield (but still in accordance with the arbitrage rules), while new funds are used to pay debt service on the issue.

The above scenario is a common occurrence in refundings, and there are special rules to prevent the issuer from taking unfair advantage of the arbitrage rules.

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##### Definition of Transferred Proceeds

In general, transferred proceeds are any proceeds of a prior issue that become proceeds of the refunding issue. Treas. Reg. section 1.148-9(b)(1) provides that when proceeds of the refunding issue discharge any of the outstanding principal amount of the prior issue, unspent proceeds of the prior issue become transferred proceeds of the refunding issue and cease to be proceeds of the prior issue.

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## Overview, Continued

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### **Purpose of the Transferred Proceeds Rule**

The purpose of the transferred proceeds rule is to reflect which borrowing is supporting the investments originally made with the proceeds of the prior issue. Remember that generally the arbitrage rules (both yield restriction and rebate) compare the earnings on unspent gross proceeds of an issue with the yield on that issue.

When a refunding issue discharges a prior issue whose proceeds have not been completely spent, the issue to which the comparison was being made (the prior issue) is no longer outstanding. After discharge of the prior issue, the issuer has an issue of obligations outstanding (the refunding issue) and unspent proceeds. This puts the issuer in the same position as it was before the refunding occurred. The issuer was required to comply with the arbitrage restrictions before the refunding and should not be able to avoid those restrictions merely by refunding the prior issue.

Therefore, the transferred proceeds rule causes the unspent proceeds of the prior issue to become proceeds of the refunding issue. Consequently, the issuer must take into account the earnings on those proceeds for purposes of demonstrating that the refunding issue complies with the arbitrage restrictions.

---

### **History of Transferred Proceeds Rules**

Section 1.103-14(e)(2)(ii) of the 1979 regulations and Section 1.148-11(d)(1) of the 1992 regulations set forth a similar “principal to principal” transferred proceeds rule, which provides for a transfer of proceeds to the refunding issue only upon a discharge of principal of the prior issue. However, section 1.148-4T(e)(2)(i) of the 1989 temporary regulations sets forth a “dollar for dollar” transferred proceeds rule, which provides for a transfer of proceeds to the refunding issue upon a discharge of principal of, or interest or retirement price on, the prior issue.

Module F discusses the effective dates of the various regulations.

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*Continued on next page*

## Overview, Continued

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**Organization of This Section** The current transferred proceeds rules which follow the “principal to principal” rule will be presented first. After all of the rules have been presented, then the text will illustrate the calculations required to actually transfer the proceeds from the prior issue to the refunding issue.

Should you find the need to calculate transferred proceeds using the “dollar for dollar” method as set forth in the 1989 temporary regulations, a brief discussion of this method, focusing on how it differs from the principal to principal method will also be presented.

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**In this section** This section contains the following topics:

Topic	See Page
Overview	E-42
Transferred Proceeds Rules - Principal to Principal Method	E-45
Illustration of the Transferred Proceeds Rules - Principal to Principal Method	E-47
Transferred Proceeds Rules - Dollar for Dollar Method	E-55

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## Transferred Proceeds Rules - Principal to Principal Method

---

### General Rule

As stated previously, Treas. Reg. section 1.148-9(b)(1) provides that when proceeds of the refunding issue discharge any of the outstanding **principal** amount of the prior issue, proceeds of the prior issue become transferred proceeds of the refunding issue and cease to be proceeds of the prior issue.

Therefore, if these transferred proceeds are required to be yield restricted, on the transfer date they must be yield restricted based on the yield of the refunding issue.

Similarly, unless these transferred proceeds qualified for an exception from rebate as proceeds of the prior issue, they also become subject to rebate at the yield of the refunding issue.

---

### Transfer Factor

Treas. Reg. section 1.148-9(b)(1) goes on to state that the amount of proceeds of the prior issue that becomes transferred proceeds of the refunding issue is an amount equal to the proceeds of the prior issue on the date of that discharge multiplied by a fraction.

The numerator of the fraction is the principal amount of the prior issue discharged with proceeds of the refunding issue on the date of that discharge.

The denominator of the fraction is the total outstanding principal amount of the prior issue on the date **immediately before** the date of that discharge.

This fraction is sometimes referred to as the **“transfer factor.”**

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### Definition of “Principal Amount”

Treas. Reg. section 1.148-9(b)(2) provides that for purposes of this section, “principal amount” means:

- in reference to a plain par bond - its stated principal amount, AND
  - in reference to any other bond - its present value.
- 

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## Transferred Proceeds Rules - Principal to Principal Method, Continued

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### Allocations to Transferred Proceeds

Treas. Reg. section 1.148-9(c)(1)(ii) provides that when proceeds of a prior issue become transferred proceeds of a refunding issue, investments (and the related payments and receipts) of proceeds of the prior issue **that are held in a refunding escrow for another issue** are allocated to the transferred proceeds under the ratable allocation method described in Treas. Reg. section 1.148-9(c)(1)(iii).

Investments of proceeds of the prior issue **that are NOT held in a refunding escrow for another issue** are allocated to the transferred proceeds:

- under the ratable allocation method described as above, OR
- under the representative allocation method described in Treas. Reg. section 1.148-9(c)(iv).

---

### Application of the Universal Cap

The universal cap limits the amount of gross proceeds that can be allocated to an issue at any one time. Because transferred proceeds are included in gross proceeds, it is possible that proceeds from a prior issue could become transferred proceeds of a refunding issue, and then be deallocated from the refunding issue by operation of the universal cap.

This section continues with an illustration of transferred proceeds in an advance refunding. Since its purpose is to show the calculations required to determine the amount of transferred proceeds, the illustration does not consider the application of the universal cap. However, the significance of the application of the cap cannot be ignored when transferred proceeds are present. Therefore, operation of the universal cap will be discussed in the next section.

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## Illustration of Transferred Proceeds - Principal to Principal Method

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### Facts

City R has an outstanding issue of \$50M 20-year bonds. The bonds were issued in 1991 and sold at par. The yield on the bonds is 9%. Interest is paid semi-annually on January 1 and July 1. Principal payments are made each January 1. The bonds are callable at par on January 1, 2001. As of January 1, 1998, \$32,500,000 of principal remains outstanding. On this date, City R issues \$30M of 15-year bonds with a yield of 5.04% to advance refund the prior bonds. Interest is paid semi-annually on January 1 and July 1. Principal payments are made each January 1.

On January 1, 1998, the prior issue has unspent proceeds in both the project fund and reserve fund. None of these proceeds are deposited into the refunding escrow.

**Table 1** shows the activity in the project fund from January 1, 1998 through January 1, 2001.

**Table 2** shows the activity in the reserve fund from January 1, 1998 through January 1, 2001.

**Table 3** shows the debt service requirements of the prior issue from January 1, 1998 through January 1, 2001.

**Table 4** is a summary of the transferred proceeds.

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*Continued on next page*

## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

**TABLE 1: SCHEDULE OF ACTIVITY IN THE PROJECT FUND**

DATE	PURCHASES	EARNINGS	REDEMPTIONS	PURPOSE DISBURSEMENTS	INVESTMENT BALANCE
1/1/98					1,445,000.00
3/1/98		3,741.00	172,861.00	176,602.00	1,272,139.00
6/1/98	1,324,690.00	52,551.00	1,272,139.00		1,324,690.00
9/1/98	4,845.00		162,574.00	157,729.00	1,166,961.00
12/1/98	1,215,057.00	48,096.00	1,166,961.00		1,215,057.00
1/1/99			207,789.00	207,789.00	1,007,268.00
3/1/99	968,938.00	55,524.00	1,031,512.00	118,098.00	944,694.00
6/1/99			340,137.00	340,137.00	604,557.00
9/1/99		33,577.00			638,134.00
12/1/99			128,892.00	128,892.00	509,242.00
1/1/00	374,019.00	5,536.00	384,464.00	15,981.00	498,797.00
3/1/00	9,847.00		127,863.00	118,016.00	380,781.00
6/1/00	260,000.00	8,308.00	251,692.00		389,089.00
9/1/00		382.00	73,506.00	73,888.00	315,583.00
12/1/00	192,000.00	6,300.00	185,700.00		321,883.00
1/1/01		178.00	36,920.00	37,098.00	284,963.00

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## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

**TABLE 2: SCHEDULE OF ACTIVITY IN THE RESERVE FUND**

<b><u>DATE</u></b>	<b><u>PURCHASES</u></b>	<b><u>EARNINGS</u></b>	<b><u>REDEMPTIONS</u></b>	<b><u>INVESTMENT BALANCE</u></b>
1/1/98				5,000,000.00
3/1/98				5,000,000.00
6/1/98		43,000.00	2,567,000.00	2,476,000.00
1/1/99	1,500,000.00	100,000.00	2,476,000.00	1,500,000.00
6/1/99	1,500,000.00	57,000.00	1,500,000.00	1,500,000.00
1/1/00				1,500,000.00
6/1/00	1,500,000.00	62,000.00	1,500,000.00	1,500,000.00
1/1/01				1,500,000.00

**TABLE 3: SCHEDULE OF DEBT SERVICE TO BE REFUNDED**

<b><u>DATE</u></b>	<b><u>INTEREST PAYMENT</u></b>	<b><u>PRINCIPAL PAYMENT</u></b>	<b><u>TOTAL DEBT SERVICE</u></b>
7/1/98	\$2,250,000.00		\$2,250,000.00
1/1/99	\$2,250,000.00	\$2,500,000.00	\$4,750,000.00
7/1/99	\$2,250,000.00		\$2,250,000.00
1/1/00	\$2,250,000.00	\$2,500,000.00	\$4,750,000.00
7/1/00	\$2,250,000.00		\$2,250,000.00
1/1/01	<u>\$2,250,000.00</u>	<u>\$27,500,000.00</u>	<u>\$29,750,000.00</u>
	\$13,500,000.00	\$32,500,000.00	\$46,000,000.00

*Continued on next page*

## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

---

### **Step 1:** **Compute the** **Transfer** **Factor**

On the date of the issuance of the refunding issue, the refunded issue has unspent proceeds in the project fund and in the reserve fund. Because these funds have not yet been allocated to purpose expenditures, they are subject to transfer. The first principal payment that will be made from refunding proceeds is scheduled for January 1, 1999. Therefore, no proceeds from the prior issue will transfer until that date.

The transfer factor is equal to the following:

$$\frac{\text{Principal amount of prior issue discharged with} \\ \text{proceeds of the refunding issue on 1/1/99}}{\text{Outstanding principal amount of the prior} \\ \text{issue on 12/31/98}} =$$
$$\frac{\$ 2,500,000}{\$32,500,000} = .0769231$$

---

### **Step 2:** **Compute the** **Amount of** **Transferred** **Proceeds on** **1/1/99**

The amount of unspent proceeds of the prior issue is equal to \$2,507,268. The amount of proceeds of the prior issue that becomes transferred proceeds of the 1998 issue is computed as follows:

$$\text{Transferred Proceeds} = \$2,507,268 \times .0769231 = \$192,867.$$

---

### **Step 3:** **Allocate the** **Transferred** **Proceeds** **Between the** **Project Fund** **and the Reserve** **Fund**

According to Treas. Reg. section 1.148-9(c)(1)(ii), either the ratable allocation method or the representative allocation method can be used to allocate the proceeds to be transferred. In this example, the ratable allocation is used.

A portion of the reserve fund transfers as follows: **(See Table 4.)**

$$\$192,867 \times \frac{\$1,500,000}{2,507,268} = \$115,384.$$

Similarly, a portion of the project fund transfers as follows:

$$\$192,867 \times \frac{\$1,007,268}{2,507,268} = \$77,482. \text{ (See Table 4.)}$$

---

*Continued on next page*

## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

---

**Step 4:**  
**Calculate**  
**Transfer**  
**Factor on**  
**1/1/00**

When a principal payment is made on 1/1/00, a new transfer factor must be computed in order to compute the amount of proceeds which will transfer on that date.

The transfer factor is computed as follows:

$$\frac{\$ 2,500,000}{\$30,000,000} = .0833333$$

---

**Step 5:**  
**Compute the**  
**Amount of**  
**Transferred**  
**Proceeds on**  
**1/1/00**

The amount of proceeds of the 1991 issue that becomes transferred proceeds of the 1998 issue on 1/1/00 is computed as follows:

The amount of proceeds subject to transfer is calculated as follows:

$$\begin{array}{rcl} \$2,507,268 & \text{investment balance as of 1/1/99} & \\ < 192,867 > & \text{proceeds transferred on 1/1/99} & \\ < 508,471 > & \text{change in investment balance between 1/1/99 and 1/1/00} & \\ \hline \$1,805,930 & & \end{array}$$

$$\text{Transferred Proceeds} = \$1,805,930 \times .0833333 = \$150,494$$

---

**Step 6:**  
**Allocate the**  
**Transferred**  
**Proceeds**  
**Between the**  
**Project Fund**  
**and the Reserve**  
**Fund**

A portion of the reserve fund transfers as follows:

$$\$150,494 \times \frac{\$1,384,615}{\$1,805,930} = \$115,384$$

Similarly, a portion of the project fund transfers as follows:

$$\$150,494 \times \frac{\$421,315}{\$1,805,930} = \$ 35,110$$

---

*Continued on next page*

## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

**Step 7:**  
**Calculate the Transfer Factor on Redemption Date**

On 1/1/01, the 1991 bonds are redeemed and the last interest payment is made.

Therefore, the transfer factor is calculated as follows:

$$\frac{\$27,500}{\$27,500} = \$100\%$$

---

**Step 8:**  
**Calculate the Amount of Transferred Proceeds on 1/1/01**

The amount of proceeds of the 1991 bonds that becomes transferred proceeds of the 1998 bonds on 1/1/01 is computed as follows:

$$100\% \quad X \quad 1,441,602 = \$1,441,602$$

The amount subject to transfer is calculated as follows:

\$1,655,436 amount remaining after 1/1/00 transfer  
< 213,834> change in investment balance between 1/1/00 and 1/1/01  
\$1,441,602 amount subject to transfer on 1/1/01

---

See Table 4 for calculations.

---

**Step 9:**  
**Allocate the Transferred Proceeds Between the Project Fund and the Reserve Fund**

The remaining balance in the reserve fund subject to transfer is equal to \$1,269,231.

The remaining balance in the project fund subject to transfer is equal to \$172,371.

Therefore, a total of \$1,441,602 transfers on 1/1/01.

All funds have transferred and no more calculations are required.

As of the date of transfer, all of the funds in the project fund that have transferred are subject to yield restriction based on the yield of the refunding bonds.

Similarly, all of the funds in the project fund and the reserve fund are subject to rebate based on the yield of the refunding bonds.

---

*Continued on next page*

## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

**TABLE 4: SUMMARY OF TRANSFERRED PROCEEDS**

	AMOUNT	RESERVE	PROJECT		1991	1998
DATE	TRANSFERRED	FUND	FUND	TOTAL	ISSUE	ISSUE
1/1/99		1,500,000.00	1,007,268.00	2,507,268.00	2,507,268.00	
	192,867.00	(115,385.00)	(77,482.00)	(192,867.00)	(192,867.00)	192,867.00
BALANCE		1,384,615.00	929,786.00	2,314,401.00	2,314,401.00	192,867.00
1/1/00	(508,471.00)		(508,471.00)	(508,471.00)	(508,471.00)	
1/1/00	150,494.00	(115,384.00)	(35,110.00)	(150,494.00)	(150,494.00)	150,494.00
BALANCE		1,269,231.00	386,205.00	1,655,436.00	1,655,436.00	343,361.00
1/1/01	(213,834.00)		(213,834.00)	(213,834.00)	(213,834.00)	
1/1/01	1,441,602.00	(1,269,231.00)	(172,371.00)	(1,441,602.00)	(1,441,602.00)	1,441,602.00
BALANCE		-	-	-	(1,784,963.00)	1,784,963.00

*Continued on next page*

## Illustration of Transferred Proceeds - Principal to Principal Method, Continued

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### **Treatment of Transferred Proceeds for Arbitrage Purposes**

Once proceeds of a prior issue become transferred proceeds of a refunding issue, their treatment for arbitrage purposes depends on:

- how the funds are used, AND
- the fund in which the amounts are held.

For example, when the project funds become transferred proceeds, if they are deposited and held in the escrow fund, they are characterized as transferred proceeds of the refunding issue. As such, they are subject to yield restriction and rebate based on the yield of the refunding issue. However, if they are placed in the 4R fund, they are still considered to be transferred proceeds of the refunding issue, but they are sheltered from yield restriction because of the general exception from yield restriction for 4R funds. Further, unless the amounts qualified for an exception to rebate as proceeds of the prior issue, these amounts become subject to rebate at the yield of the refunding issue.

Remember that the universal cap can limit the amount of transferred proceeds allocated to an issue.

---

## Transferred Proceeds Rules - Dollar for Dollar Method

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### **Introduction**

The dollar for dollar method of transferring proceeds is set forth in Treas. Reg. section 1.148-4T(e)(2)(i) of the 1989 regulations. (Therefore, all of the cites in this discussion refer to the 1989 temporary regulations.) This method provides that unspent proceeds of the refunded issue become transferred proceeds of the refunding issue when any amount of proceeds of the refunding issue are used to discharge the principal OR interest of the refunded issue.

There is no transfer factor as was computed in the previous illustration. Rather on the date of transfer, the amount of unspent proceeds that transfers to the refunding issue is equal to the amount of the debt service discharged.

When computing the amount of rebate due, a portion of each investment (and their related payments and receipts) is included in the computation. This portion is based on a ratio of amounts transferred to the total investment balance on the date of transfer.

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*Continued on next page*

## Transferred Proceeds Rules - Dollar for Dollar Method, Continued

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**Effective Dates**    Treas. Reg. section 1.148-0T(b)(1)(ii) (**Temporary**) provides that the dollar for dollar method is generally effective for bonds issued after:

- August 15, 1986, if the bond is NOT a governmental bond described in section 1312(c)(2) of the 1986 Act, AND
- August 31, 1986, if the bond is a governmental bond described in section 1312(c)(2) of the 1986 Act.

Treas. Reg. section 1.148-0(b)(8)(i) provides that section 1.148-11 (the principal to principal method) generally applies to all issues issued after June 17, 1992.

Therefore, generally, the dollar for dollar method applies to bonds issued after August 15, 1986 (or August 31, 1986 for certain governmental bonds) through June 17, 1992.

Additionally, Treas. Reg. section 1.148-0(b)(8)(iii) provides for elective early application of sections 1.148-4, 1.148-8 and 1.148-11 (the principal to principal method) to issues issued on or after May 18, 1992. (Any or all of these three sections may be selectively applied.)

Lastly, Treas. Reg. section 1.148-0(b)(8)(iv) provides that an issuer may elect to apply the provisions of 1.148-11 and 1.148-4(b)(3) in lieu of section 1.148-4T(e) to bonds sold after May 15, 1989, and issued after June 14, 1989 but before June 17, 1992. Certain requirements must also be met for issuers who make this election.

**See Module F for more information about these effective dates.**

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## Section 2

### Universal Cap

#### Overview

---

##### Introduction

Application of the universal cap goes hand in hand with the concept of transferred proceeds. While unspent proceeds of a prior issue can become “transferred proceeds” of the refunding issue, the universal cap acts to limit the amount of prior issue proceeds that are treated as transferred proceeds.

Remember from Module D that:

- the value of nonpurpose investments allocable to an issue cannot exceed the value of all of the outstanding bonds of the issue, AND
  - the value of all outstanding bonds of the issue is referred to as the **universal cap**.
- 

##### What is Included in Nonpurpose Investments

Remember from Phase I of this course that **nonpurpose investment** means any investment property, as defined in IRC section 148(b), that is not a purpose investment.

Treas. Reg. section 1.148-6(b)(2)(ii) provides that, for purposes of the universal cap, gross proceeds allocable to the following are also treated as nonpurpose investments:

- cash,
  - tax-exempt bonds that would be nonpurpose investments (absent IRC section 148(b)(3)(A)),
  - qualified student loans, and
  - qualified mortgage loans.
- 

##### What is NOT Included in Nonpurpose Investments

Treas. Reg. section 1.148-6(b)(v) provides that nonpurpose investments allocated to gross proceeds in a bona fide debt service fund are NOT taken into account in determining the value of nonpurpose investments.

Additionally, those nonpurpose investments remain allocated to the issue.

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*Continued on next page*

## Overview, Continued

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### Determining the Value of Bonds and Investments

Treas. Reg. section 1.148-(b)(2)(ii) provides that:

- the value of bonds is determined under Treas. Reg. section 1.148-4(e), AND
- the value of investments is determined under Treas. Reg. section 1.148-5(d).

#### Example

Using the same facts as those in the example beginning on page 47, assume that City R's advance refunding bonds are plain par bonds and have a stated interest rate of 3%. The value of the refunding bonds on January 1, 1999 would be \$28M, the outstanding principal amount on the date. (\$30M/15=2M. 2M was paid on January 1, 1999)

Assume further that on January 1, 1998, City R deposits \$1.5M of the proceeds into the 4R fund and \$28M of the proceeds into the escrow fund. The 4R funds are invested in Treasury obligations, and the escrow funds are invested in SLGs.

According to Treas. Reg. section 1.148-5(d)(1), the 4R investments can be valued at fair market value or present value.

However, according to Treas. Reg. section 1.148-5(d)(2), the escrow investments **must** be valued at present value.

---

### When a Cap Calculation is Required

Treas. Reg. section 1.148-6(b)(2)(iii) provides that for refunding and refunded issues, the cap and values must be determined as of each date that there is a possibility of proceeds of the refunded issue becoming transferred proceeds of the refunding issue.

Therefore, the cap and values must be determined on each date that refunding issue proceeds pay a portion of the principal of the prior issue.

However, Treas. Reg. section 1.148-6(b)(2)(i) provides that the cap does not have to be applied if no reduction or reallocation of gross proceeds would result.

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*Continued on next page*

## Overview, Continued

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### Where Do Deallocated Proceeds Go?

Treas. Reg. section 1.148-9(b)(3)(b) provides that deallocated amounts are reallocated back to the prior issue to the extent of the unusual universal cap on that prior issue.

Additionally, Treas. Reg. section 1.148-6(b)(2)((iv)(B) provides that when amounts are deallocated from an issue due to the application of the universal cap, they are allocated to another issue as replacement proceeds.

---

### Transfer cap

The universal cap as discussed in Treas. Reg. section 1.148-6(b)(2) was called the **transfer cap** in the 1989 regulations. The rules for the transfer cap are in Treas. Reg. section 1.148-4T(e)(2)(ii)(C).

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## Section 3

### Multipurpose Issue Allocations

#### Overview

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##### Introduction

Assume that County X has an outstanding bond issue from 1989. The bonds were issued to build a recreation center. In 1994, County X issued \$25M principal amount of bonds, using \$15M of the proceeds to advance refund the 1989 issue, and the remaining \$10M of the proceeds to finance a skating rink adjacent to the recreation center. The bonds are serial bonds with \$2.5M in principal maturing each year for 10 years. The bonds were issued as Series A (advance refunding) and Series B (rink), but for purposes of Treas. Reg. section 1.150-1(c)(1) constituted a single issue.

In 1998, interest rates have declined, and County X is considering advance refunding the skating rink portion of the 1994 issue. Is the County permitted to do this?

The multipurpose issue allocation rules of Treas. Reg. section 1.148-9(h) permit issuers to advance refund only a portion of an issue, as long as that portion qualifies as a separate purpose under the rules.

Assume that County X advance refunds Series B, and there are unspent proceeds in the project and reserve funds, along with unspent proceeds in the refunding escrow of Series A. Upon payment of principal of the prior issue with refunding issue proceeds, should a portion of the proceeds in the refunding escrow become transferred proceeds of the refunding issue, along with proceeds in the project and reserve funds? Also, which of the maturing bonds should be paid with the 1998 escrow funds - the earliest? - the latest? - a portion of each maturity?

These are the kinds of questions that the multipurpose issue allocation rules are designed to address. Treas. Reg. sections 1.148-9(h) and (i) provide rules for allocating proceeds, costs, and bonds of a single issue with more than one purpose.

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*Continued on next page*

## Overview, Continued

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### When are the Allocation Rules Used?

Treas. Reg. section 1.148-9(h)(1) provides that a portion of the bonds of a multipurpose issue reasonably allocated to any separate purpose is treated as a separate issue for ALL purposes of IRC section 148 except the following:

- arbitrage yield (except for two or more conduit loans that are tax-exempt bonds),
- rebate amount (except for two or more conduit loans that are tax-exempt bonds),
- minor portion,
- reasonably required reserve or replacement fund, AND
- applying the provisions of Treas. Reg. section 1.148-11(b) (relating to elective retroactive application of sections 1.148-1 through 1.148-10 to certain issues.)

#### Example

In the example above, County X would be permitted to have only one reserve fund for the 1994 issue and would calculate its size based on the total amount of bonds issued (Series A plus Series B.)

On the other hand, when Series B of the 1994 issue is advance refunded, the proceeds of Series A are NOT subject to transfer to the 1998 issue

---

### Application of Savings Test

Treas. Reg. section 1.149(d)(1)(f)(3) provides that the multipurpose issue rules in Treas. Reg. section 1.148-9(h) apply for purposes of the savings test of IRC section 149(d)(3)(B)(i).

If any separate issue in a multipurpose issue increases the aggregate present value debt service savings or reduces the present value debt service losses on the entire multipurpose issue, that separate issue satisfies the savings test.

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*Continued on next page*

## Overview, Continued

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**In this section** This section contains the following topics:

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Separate Purposes	E-63
Rules on Allocations of Multipurpose Issues	E-65
Allocations of Bonds of a Multipurpose Issue	E-66
Partial Refundings	E-69

---

## Separate Purposes

---

### What are Separate Purposes?

Treas. Reg. section 1.148-9(h)(3)(i) provides that separate purposes of a multipurpose issue include:

- refunding a separate prior issue,
  - financing a separate purpose investment,
  - financing a construction issue (as defined in Treas. Reg. section 1.148-7(f)),
- AND
- any clearly discrete governmental purpose reasonably expected to be financed by that issue.
- 

### Capital Projects

In general, all integrated or functionally related capital projects that qualify for the same initial temporary period under Treas. Reg. section 1.148-2(e)(2) are treated as having a single governmental purpose.

#### Example

City Z issues bonds and loans the proceeds to a qualified 501(c)(3) organization. The organization uses part of the funds to build an addition to a medical office building. The rest of the funds are used to build a parking lot adjacent to a hospital on the other side of the city. Even though both projects qualify for the general three-year temporary period, they are not integrated or functionally related. Therefore, they are NOT treated as having a single governmental purpose.

---

### Refunding Issues

Treas. Reg. section 1.148-9(h)(3)(i) provides that the separate purposes of a refunding issue include the separate purposes of the prior issue, if any.

**(See the example in Treas. Reg. section 1.148-9(h)(3)(ii))**

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*Continued on next page*

## Separate Purposes, Continued

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**Financing  
Common Costs**

Common costs of a multipurpose issue are NOT separate purposes.

Common costs include:

- issuance costs,
  - accrued interest,
  - capitalized interest on the issue,
  - reserve or replacement fund,
  - qualified guarantee fees, AND
  - similar costs properly allocable to the separate purposes of the issue.
-



## Rules on Allocations of Multipurpose Issues

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### **General Rule**

Treas. Reg. section 1.148-9(h)(2)(i) provides generally that proceeds, investments, and bonds of a multipurpose issue may be allocated among the various separate purposes of the issue using any reasonable, consistently applied allocation method.

An allocation is not reasonable if it achieves more favorable results under IRC sections 148 or 149(d) than could be achieved with actual separate issues.

An allocation may be made at any time, but once made may NOT be changed.

---

### **Allocations of Common Costs**

Treas. Reg. section 1.148-9(h)(2)(ii) provides that a ratable allocation of common costs among the separate purposes of the multipurpose issue is generally reasonable.

Another method may be used if it more accurately reflects the economic benefit or burden of the costs.

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# Allocations of Bonds of a Multipurpose Issue

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## Introduction

Let's return to the example in the Overview. The 1998 bonds advance refund the Series B bonds. Each year when bonds mature, specifically which bonds are redeemed using the escrow funds, and which bonds are redeemed using other revenues? Can the issuer allocate all of the earliest maturing bonds to Series B, or should a portion of each maturity be allocated to both Series A and Series B?

Treas. Reg. section 1.148-9(h)(4) provides the answers to these questions.

---

## Safe Harbor for Allocation of Bonds

Treas. Reg. section 1.148-9(h)(4)(i) provides that the issue price of bonds allocated to a separate purpose should bear the same ratio to the aggregate issue price of the multipurpose issue as the portion of the sale proceeds of the issue used for that separate purpose bears to the aggregate sale proceeds of the multipurpose issue.

### Example

In our example of County X's bonds, each year the \$2.5M maturities could be allocated \$1.5M to Series A, and \$1M to Series B.

Treas. Reg. section 1.148-9(h)(4)(ii) provides that this pro rata method of allocation based on the relative amount of sales proceeds will be considered to be a reasonable method of allocating the bonds.

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*Continued on next page*

## Allocations of Bonds of a Multipurpose Issue, Continued

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### **Allocation of Bonds Used to Refund Two or More Prior Issues**

When one issue refunds two or more prior issues, its bonds are allocated to each prior issue in the same manner as discussed above. However, the portion of the sales proceeds allocated to the refunding of a separate prior issue is based on the present value of the refunded debt service on that prior issue, using the yield on investments in the refunding escrow allocable to the entire refunding issue as the discount rate.

#### Example

Series X in the amount of \$50M refunds Series A and Series B. \$2.5M of the bonds mature each year for 20 years. The present value of the debt service to be refunded for Series A and Series B is \$20M and \$22M respectively. These present values are determined using the yield of the Series X escrow. As the bonds of Series X mature, 40 percent (\$20M/\$50M) of the bonds will be allocated to Series A (and paid with revenues of the Series A project,) and 60 percent will be allocated to Series B (and paid with revenues of the Series B project.)

---

### **Safe Harbor for Allocation of Purpose Investments**

Treas. Reg. section 1.148-9(h)(4)(iii) provides that an allocation of a portion of the bonds of a multipurpose issue to a particular purpose investment is generally reasonable if that purpose investment has principal and interest payments that reasonably coincide in time and amount to principal and interest payments on the bonds allocated to that purpose investment.

#### Example

Housing Authority X issues a \$10M bond issue to finance qualified mortgage loans for owner-occupied residences under IRC section 143. The Authority originates \$5M of loans at 5% and six months later originates \$5M of loans at 6.5%. A portion of the maturing bonds can be allocated to each purpose investment (loans) as long as the principal and interest payments of both coincide in time and amount.

---

### **Allocations of Refunding Bonds**

When allocating bonds of a multipurpose issue which refunds separate prior issues, the rules of Treas. Reg. sections 1.148-9(h)(1) and (2) must be followed along with other rules found in Treas. Reg. section 1.148-9(h)(4)(v).

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*Continued on next page*

## Allocations of Bonds of a Multipurpose Issue, Continued

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### **Multi- generation Allocations**

A multi-generation bond issue refers to a refunding of an issue which already refunded a prior issue.

Treas. Reg. section 1.148-9(h)(5) provides that the allocation rules apply only to refunded issues which are refunded directly by issues to which Treas. Reg. section 1.148-9(h) applies. Treas. Reg. section 1.148-9(h) generally applies to bonds issued after June 30, 1993.

#### Example

If a 1994 issue refunds a 1984 multipurpose issue, which in turn refunded a 1980 multipurpose issue, Treas. Reg. section 1.148-9(h) applies to allocations of the 1984 issue for purposes of allocating the refunding purposes of the 1994 issue, but does NOT permit allocations of the 1980 issue.

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# Partial Refundings

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## Introduction

Assume that State Q has a \$100M nine percent bond issue outstanding from 1991. The proceeds were used to construct a stadium. In 1998, with \$70M of this issue still outstanding, the State decides to advance refund only \$35M of the issue.

The 1991 issue is a single-purpose issue, which according to Treas. Reg. section 1.148-9(h)(3) cannot be divided into separate purposes. Are partial refundings permitted? If so, how will the maturing bonds be allocated for refunding purposes? And how much of the unspent proceeds can become transferred proceeds of the refunding issue?

These questions are addressed by Treas. Reg. section 1.148-9(i).

---

## Allocating a single-purpose refunded issue

Treas. Reg. section 1.148-9(i)(1) provides that for purposes of the multipurpose issue allocations, the separate purposes of a prior issue include the refunded and unrefunded portions of the prior issue.

The refunded portion of the bonds of a prior issue is based on a fraction as follows:

$$\frac{\text{Principal amount of the Prior Issue to be} \\ \text{Paid with Proceeds of the Refunding Issue}}{\text{Outstanding Principal Amount of the Bonds} \\ \text{of the Prior Issue}}$$

Each of the above amounts is determined as of the issue date. ( **See Treas. Reg. section 1.149-9(b)(2) for the definition of principal amount.** )

---

## Allocations of Proceeds and Investments

Treas. Reg. section 1.148-9(i)(2) provides that as of the issue date of the partial refunding, unspent proceeds of the prior issue are allocated ratably between the refunded and unrefunded portions of the prior issue.

Investments allocable to those unspent proceeds are allocated in the manner required for the allocation of investments to transferred proceeds under Treas. Reg. section 1.148-9(c)(1)(ii).

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## Partial Refundings, Continued

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**Allocations of  
Proceeds and  
Investments,  
(continued)****Example**

Using the example above, assume that State Q's 1991 issue has unspent proceeds of \$12M. \$10M are in a 4R fund and \$2M remain in the project fund. Under Treas. Reg. section 1.148-9(i)(2), \$5M of the amounts in the 4R fund,  $(\$35M/\$70M \times \$12M)$  and \$1M of the amounts in the project fund would be allocated to the refunded (and unrefunded) portions of the issue. Therefore, only \$6M of the unspent proceeds would be subject to transfer.

---

## Section 4

### Mixed Escrow Rules

#### Overview

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##### Introduction

Assume that in 1995 State S issues bonds with a yield of four percent to advance refund a bond issue originally issued in 1990. The 1990 bonds have a yield of eight percent and are callable in 2000. Unspent proceeds of the 1990 bonds in the project and 4R funds are deposited into the escrow fund, along with the refunding bond proceeds. Debt service requirements are such that only interest payments are required through 1999. There are no principal payments due until 2000. State S wants to minimize the amount of transferred proceeds. Therefore, State S allocates refunding bond proceeds to interest payments, and prior issue proceeds are accumulated until needed to pay principal at maturity. This allocation prevents prior issue proceeds from becoming transferred proceeds, and prolongs their investment at eight percent.

The mixed escrow rules of Treas. Reg. section 1.148-9(c)(2)(i) are designed to prevent issuers from making expenditure allocations like these. Anytime an escrow fund contains refunding issue proceeds and other amounts, such as unspent prior issue proceeds or issuer revenues, it is referred to as a “**mixed escrow**.” The rules require that non-refunding bond proceeds be spent at least as fast as refunding issue proceeds.

---

##### Definition of Non-proceeds

The mixed escrow rules consist of a general rule and two exceptions to the general rule. The general rule provides rules for the treatment of refunding bond proceeds and “non-proceeds.” In effect, the general rule does not distinguish among amounts which come from different funds (e.g. project, 4R, or BFDS) of the prior issue, preferring instead to lump together all proceeds which are NOT refunding bond proceeds, by referring to them as “non-proceeds.”

However, the exceptions DO make distinctions based on the source of non-proceeds, and they prove to be more controlling than the general rule.

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*Continued on next page*

## Overview, Continued

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**In This Section** This sections contains the following topics:

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General Rule	E-73
Allocation Rules for Specific Types of Non-Proceeds	E-75
Treatment of Issuer Revenues	E-76
Examples	E-77

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# General Rule

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## Introduction

Treas. Reg. section 1.148-9(c)(2)(i) requires, with certain exceptions, that when a refunding escrow contains refunding proceeds and other amounts which are NOT refunding proceeds, expenditures for principal, interest, and redemption prices on the prior issue must be allocated so that the expenditures of the refunding bond proceeds do NOT occur faster than ratably with expenditures of the other amounts in the mixed escrow.

## Example

City A advance refunds a prior issue of bonds. On the issuance date of the refunding bonds, the prior issue has unspent proceeds. These amounts are deposited into the refunding escrow, and comprise 10 percent of the refunding escrow. When an interest payment on the prior issue is required to be paid, the payment is made from the refunding escrow. 90 percent of the interest payment is considered to have been made from refunding bond proceeds, while 10 percent is considered to come from the prior issue proceeds.

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## General Rule, Continued

### Actually Two Allocations are Required

Whenever there are unspent prior issue proceeds, Treas. Reg. section 1.148-9(c)(2) requires that the debt service payment be allocated between:

- sources of funds (refunding bond proceeds and non-proceeds), AND
- uses (principal, interest, redemption price.)

#### Example

State R advance refunds a prior issue, depositing \$500,000 of unspent proceeds along with \$2M of refunding bond proceeds into the refunding escrow. The first debt service payment of \$1.5M consists of \$1M in principal and \$500,000 of interest.

The first allocation determines the source of the funds to be used for debt service:

$$\$500,000 + \$2,000,000 = \$2,500,000$$

$$\$500,000 / 2,500,000 \times 1,500,000 = \$300,000 \text{ from the prior issue}$$

$$\$2,000,000 / 2,500,000 \times 1,500,000 = \$1,200,000 \text{ from the refunding issue}$$

The second allocation determines the use of the funds:

#### Prior Issue Proceeds:

$$\$1,000,000 / 1,500,000 \times 300,000 = \$200,000 \text{ for principal}$$

$$\$500,000 / 1,500,000 \times 300,000 = \$100,000 \text{ for interest}$$

#### Refunding Issue Proceeds:

$$\$1,000,000 / 1,500,000 \times 1,200,000 = \$800,000 \text{ for principal}$$

$$\$500,000 / 1,500,000 \times 1,200,000 = \$400,000 \text{ for interest}$$

## Allocation Rules for Specific Types of Non-Proceeds

---

### **BFDS and Project Funds**

Treas. Reg. section 1.148-9(c)(2)(ii)(A) requires that amounts deposited into the refunding escrow which were in a bona fide debt service fund or in a project fund prior to the issuance of the refunding bonds, **must** be allocated to the earliest maturing investments in the mixed escrow. This means that these amounts must be considered to be available for expenditures before all other funds.

If there are unspent proceeds from both the BFDS and the project fund in the refunding bond escrow, an allocation between the two funds is NOT required.

---

### **Other amounts**

Treas. Reg. section 1.148-9(c)(2)(ii)(B) provides that non-proceeds MAY BE allocated to the earliest maturing investments in the mixed escrow, provided:

- any amounts previously in a BFDS or project fund have already been allocated,
- the investments actually mature, AND
- the proceeds are expended before the date of any expenditure from the mixed escrow to pay principal of the prior issue.

This is a permissive (not a mandatory) rule.

---

# Treatment of Issuer Revenues

---

## Introduction

Treas. Reg. section 1.149(d)-1(d)(2) provides that the mixed escrow rules do not apply to amounts which were NOT gross proceeds of the prior issue before the issue date of the refunding issue.

### Example

Assume that State V wants to advance refund a prior multipurpose issue. The prior issue consists of two series of bonds: Series A, which advance refunded a prior post-1985 issue, and Series B which was used for construction of a building. State V wants to advance refund both Series A and B, but is prohibited from issuing tax-exempt bonds to advance refund Series A because of IRC section 149(d)(3)(A)(i)(I). Therefore, State V proposes to do a cash defeasance of Series A and issues tax-exempt bonds to advance refund Series B. Debt service of the prior issue is structured such that Series A is paid off in the early years, while the Series B bonds are paid in the later years. Both the issuer revenues and the refunding bond proceeds are deposited into the refunding escrow.

Without Treas. Reg. section 1.149(d)-1(d)(2), the issuer would be required to allocate a portion of the refunding bond proceeds (along with the issuer revenues) to the debt service on Series A, which would result in a prohibited advance refunding.

Treas. Reg. section 1.149(d)-1(d)(2) provides that the mixed escrow rules will NOT apply to amounts that were not gross proceeds of the prior issue before the issue date of the refunding issue for the following purposes:

- IRC section 149(d)(2), AND
- IRC section 149(d)(3)(A)(i) and (ii).

Note that IRC section 149(d)(3)(A)(iii) is not included.

---

## Example 1

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### Facts

City C's refunding escrow contains amounts from the following sources in the indicated amounts:

- Refunding proceeds \$5,000,000
- Prior issue bona fide debt service fund 50,000
- Prior issue project fund 800,000
- Prior issue reserve 200,000

Scheduled investment maturities are shown below:

Date of Maturity	Investment Proceeds
May 15, 1997	\$250,000
November 15, 1997	\$250,000
May 15, 1998	\$1,250,000

---

Scheduled debt service payments are shown below:

Date of Payment	Type of Payment	Amount of Payment
June 1, 1997	Interest	\$250,000
December 1, 1997	Interest	\$250,000
June 1, 1998	Principal and interest	\$1,250,000

---

### Allocations

According to Treas. Reg. section 1.148-9(c)(2)(ii)(A), the \$50,000 in the bona fide debt service fund and \$200,000 of the project fund must be allocated to the investments maturing on May 15, 1997. These funds will then be considered to pay the interest payment of \$250,000 on June 1, 1997.

\$250,000 of the project fund must be allocated to the investments maturing on November 15, 1997, and will then be considered to pay the interest payment of \$250,000 on December 1, 1997.

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*Continued on next page*

## Example 1, Continued

### Allocations, continued

The last payment requires two allocations because both refunding bond proceeds and non-proceeds will be used, AND because the debt service payment consists of both interest and principal components. The remaining \$350,000 in the project fund must be allocated to the investments maturing on May 15, 1998, and will be considered to pay \$350,000 of the \$1,250,000 payment on June 1, 1998. This amount must also be allocated between principal and interest:

$$\frac{\$1,000,000}{\$1,250,000} \times \$350,000 = \$280,000 \text{ for principal}$$

$$\frac{\$250,000}{\$1,250,000} \times \$350,000 = \$70,000 \text{ for interest}$$

Then, according to Treas. Reg. section 1.148-9(c)(2)(i), the remaining \$900,000 of maturing investments and the subsequent debt service payment on June 1, 1998 must be allocated ratably between the refunding proceeds and the reserve fund. This allocation can be accomplished in the following manner:

$$\begin{array}{rcl} \$5,000,000 & \text{refunding proceeds} & \\ \underline{200,000} & \text{reserve fund} & \\ \$5,200,000 & & \end{array}$$

$$\frac{\$5,000,000}{\$5,200,000} \times \$900,000 = \$864,000 \text{ of refunding bond proceeds}$$

$$\frac{\$200,000}{\$5,200,000} \times \$900,000 = \$36,000 \text{ of non-proceeds (reserve)}$$

Therefore, \$864,000 of refunding proceeds is considered to be spent, as is \$36,000 of the reserve fund.

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*Continued on next page*

## Example 1, Continued

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**Allocations,  
continued**

Lastly, the \$864,000 and the \$36,000 each must be allocated to principal and interest, as follows:

Refunding bond proceeds:

\$1,000,000

$\$1,250,000 \times \$864,000 = \$691,200$  for principal

\$250,000

$\$1,250,000 \times \$864,000 = \$172,800$  for interest

Non-proceeds (reserve):

\$1,000,000

$\$1,250,000 \times \$36,000 = \$28,800$  for principal

\$250,000

$\$1,250,000 \times \$36,000 = \$70,000$  for interest

Since a principal payment was made from refunding proceeds, a portion of the \$164,000 of remaining reserve funds will become transferred proceeds of the refunding issue. The portion that transfers cannot be invested at a yield greater than 0.001 percent of the refunding bond yield. The remainder must be yield restricted to 0.001 percent above the prior issue bond yield. (Remember that these amounts are in the escrow fund now, and are no longer sheltered from yield restriction under the 4R fund exemption from yield restriction.)

These transferred amounts also become subject to rebate at the refunding issue yield.

---

## Example 2

### Facts

County K's refunding escrow contains amounts from the following sources in the indicated amounts:

- Refunding proceeds \$2,000,000
- Prior issue project fund 50,000
- Prior issue BFDS fund 50,000
- Prior issue 4R fund 200,000
- Prior issue sinking fund 200,000

Scheduled investment maturities are shown below:

DATE OF MATURITY	FUND TYPE	INVESTMENT PROCEEDS
1/1/99	BFDS	\$ 50,000
	Project	50,000
	4R	25,000
7/1/99	4R Fund	\$ 25,000
	Sinking Fund	200,000
	Refunding	100,000
	Bond Proceeds	

Scheduled debt service payments are shown below:

DATE OF PAYMENT	TYPE OF PAYMENT	PAYMENT AMOUNT
1/1/99	Interest	\$125,000
7/1/99	Principal and interest	\$325,000
1/1/00	Interest	\$125,000
7/1/00	Principal and interest	\$325,000

Amounts in the escrow will be considered to be allocated to the debt service payments as shown below:

DATE OF PAYMENT	TYPE OF FUND	AMOUNT
1/1/99	Project	\$50,000
	BFDS	50,000
7/1/99	Non-proceeds	\$225,000
	Refunding bond proceeds	100,000

*Continued on next page*



## Example 2, Continued

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### Analysis

On 1/1/1999, amounts in the project and BFDS funds must be used to pay the debt service payment on that date. Even though \$25,000 of the 4R fund matures on this date, this amount CANNOT be used for debt service because amounts in the project and BFDS funds must be allocated first. This amount will be reinvested, and will be used to pay a portion of the 7/1/1999 payment, but must be allocated ratably with other non-proceeds and refunding bond proceeds because a principal payment will be made on 7/1/1999.

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## Part III: Introduction to the Arbitrage Rules

### Overview

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#### Introduction

Advance refundings present unique problems with respect to arbitrage. This is mainly because two bond issues related to the same initial project are outstanding at the same time. Depending on the issuance date of the refunding bonds and the call date of the refunded bonds, both issues can be outstanding for some time.

Ideally, when advance refunding bonds are issued, the proceeds of the original issue will have already been spent. In this situation, only the proceeds of the refunding issue would be subject to the arbitrage rules.

Normally, however, when advance refunding bonds are issued, there are still proceeds of the original issue that remain unspent. These unspent proceeds are the major cause of the complexity in the advance refunding arbitrage rules.

For example, assume that City A issues a “high-to-low” advance refunding of an outstanding issue. In a “high-to-low” refunding, the yield on the refunding issue is less than the yield on the refunded issue. On the issuance date of the refunding bonds, the prior issue has unspent proceeds invested in nonpurpose investments. Now, there are two bond issues outstanding for one project. It would seem that the issuer should be required to spend the prior issue proceeds before spending any of the refunding issue proceeds. And that is exactly what the allocation rules for refunding issues require! Even if the issuer actually spends refunding issue proceeds first, the rules treat these expenditures as coming from prior issue proceeds anyway. They do this by replacing spent refunding issue proceeds with unspent prior issue proceeds. These “replaced” proceeds are then subject to the arbitrage rules at the yield of the refunding issue. This is to prevent issuers from accumulating prior issue proceeds upon which higher yields can be earned, while using refunding proceeds to meet current liabilities.

Part III of this module is devoted to the special arbitrage rules of advance refundings. It begins with the yield restriction rules, and continues with the rebate rules. The last section ties the arbitrage and the allocation rules together.

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*Continued on next page*

## Overview, Continued

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**In This Part** This part contains the following topics:

Topic	See Page
Overview	E-82
Section 1: General Rules - Yield Restriction	E-84
Section 2: General Rules - Rebate	E-99
Section 3: Treatment of Prior Issue Proceeds	E-113

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## Section 1

### General Rules - Yield Restriction

#### Overview

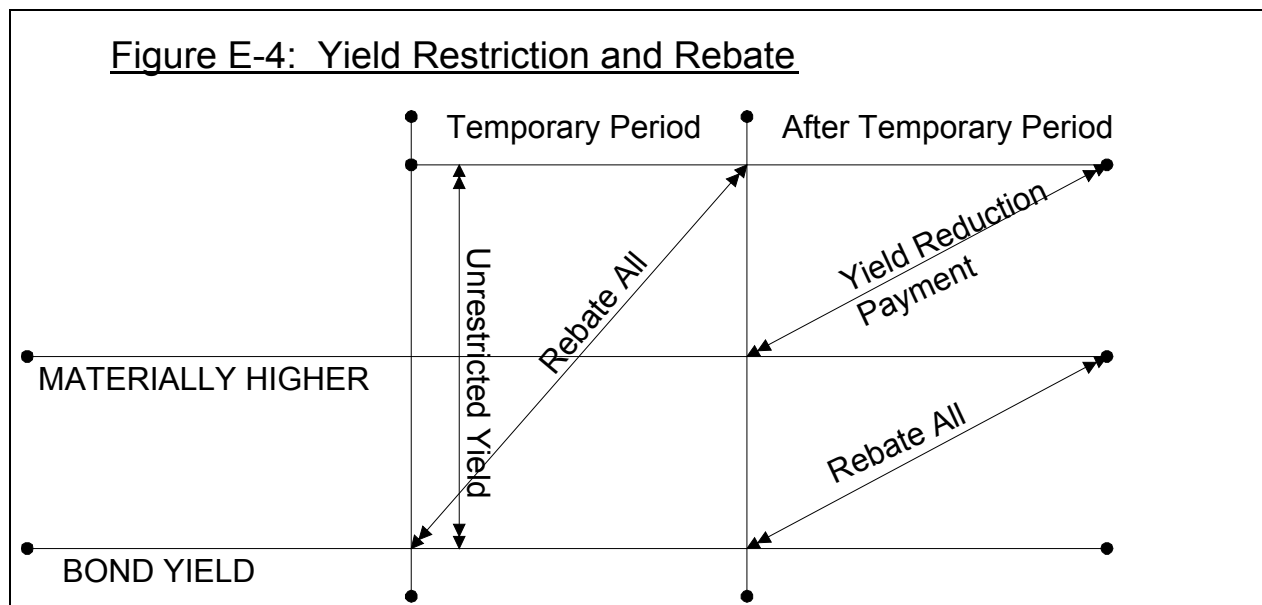
##### Introduction

The proceeds of both the prior and the refunding issues are subject to the yield restriction rules. However, since there are actually two separate issues outstanding, and each issue has its own proceeds, care must be taken when applying the yield restriction rules.

To apply the yield restriction rules properly, the first step is to characterize the proceeds (i.e. sale, investment, transferred, or replacement.) Then, the proceeds are allocated to the appropriate issue. Then, and only then, can the yield restriction rules be applied. This is why being able to differentiate between proceeds and gross proceeds is so important.

##### Review of Yield Restriction and Rebate

Remember that the yield restriction rules are separate from the rebate rules. Permitted earnings above the bond yield but not exceeding “materially higher” are rebated to the US government. Rebate cannot cure a yield restriction problem. Noncompliance with the yield restriction rules can be corrected with a yield reduction payment.



*Continued on next page*

## Overview, Continued

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**In this section** This section contains the following topics:

Topic	See Page
Overview	E-84
Initial Temporary Periods	E-86
Definition of Materially Higher	E-88
Minor Portion	E-90
Yield Blending in the Computation of Yield on Investments	E-91
Yield Reduction Payments	E-98

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# Initial Temporary Periods

## Introduction

IRC section 149(d)(3)(A)(iv) provides that:

- proceeds of a refunding issue are permitted an initial temporary period of 30 days after issuance, AND
- the initial temporary period of any remaining proceeds of the refunded bond ends on the issuance date of the refunding bonds.

## Temporary Periods for Specific Proceeds

Although general temporary periods are set forth in Treas. Reg. section 1.148-2(e), these rules do NOT apply to refunding issues. Instead, Treas. Reg. section 1.149(d)(1)(d)(3) provides that the rules in Treas. Reg. section 1.148-9(d) apply to refunding issues, as shown in the table below.

Type of Proceeds	Temporary Period
Unspent proceeds of prior issue	Ends on the issuance date of the refunding issue.
Proceeds of refunding issue held in refunding escrow	30 days
Proceeds reasonably expected to pay debt service on prior issue	30 days
Replacement proceeds held in BFDS (Bona Fide Debt Service) fund	13 months
Replacement proceeds not held in a BFDS fund	30 days
Proceeds held in BFDS fund	13 months
Proceeds used to pay costs of issuance	13 months
Investment earnings	13 months
Proceeds held in reserve fund	unrestricted
Minor portion	unrestricted
Transferred Proceeds	none

*Continued on next page*

## Initial Temporary Periods, Continued

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**Example**

In 1998, City K advance refunds a series of bonds, which were originally issued in 1996. On the issuance date of the advance refunding bonds, the prior issue has unspent proceeds in its project fund. These funds still qualified for unrestricted yield under the three-year temporary period for construction projects.

However, according to IRC section 149(d)(3)(A)(iv), on the issuance date of the refunding bonds, the temporary period for the project fund ends, and the yield on investments in the fund cannot exceed the **prior issue's** bond yield by more than 0.125 percent.

When proceeds of the refunding escrow are used to pay principal on the prior issue, a portion of the project fund will become transferred proceeds of the refunding issue. The earnings on investments must be restricted to 0.125 percent above the **refunding bond yield**.

---

## Definition of “Materially Higher”

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**General Rules**      Treas. Reg. section 1.148-9 does NOT contain a special definition of “materially higher” for advance refundings. Therefore, the definitions of “materially higher” that are set forth in Treas. Reg. section 1.148-2(d) apply to proceeds of refunding issues, and are shown in the table below:

Type of Proceeds	Definition of Materially Higher
Replacement proceeds	.001 percent
Proceeds held in the refunding escrow	.001 percent
All other refunding issue proceeds	.125 percent

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**Example**      In 1999, City C issues \$15M bonds to advance refund bonds originally issued in 1998. City C also supplements the bond issue with \$5M from its general fund. On the issuance date of the refunding bonds, City C deposits both of the above amounts in the escrow fund.

Investments of amounts (including issuer equity and investment earnings) in the escrow fund must be yield restricted to 0.001 percent above the refunding bond yield.

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Also on the issuance date, the original issue has unspent proceeds as follows:

Fund	Amount
Project	\$20M
4R	\$1.5M
BFDS	\$1M

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*Continued on next page*



## Definition of “Materially Higher”, Continued

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**Example,  
(continued)**

In this example, amounts in the project fund remain there pending completion of the project, but earnings must be yield restricted to no more than 0.125 percent of the prior bond yield, because:

- the temporary period ended on the issuance date of the refunding bonds,  
AND
- they are not yet proceeds of the refunding issue.

The issuer designates the \$1.5M in the 4R fund as the 4R fund of the refunding issue. The earnings on these amounts are not subject to yield restriction because they are sheltered by the 4R fund.

The \$1M in the BFDS is deposited into the escrow fund, and the earnings must be yield restricted to no more than 0.001 percent of the prior issue bond yield, because they are not yet proceeds of the refunding issue.

The mixed escrow rules will require these prior BFDS amounts to be allocated to the earliest debt service payments.

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## Minor Portion

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### Introduction

Even though the minor portion is NOT an established fund, it deserves some attention because the regulations allow certain amounts designated as such to be invested without yield restriction.

Treas. Reg. section 1.148-9(f) permits both the refunded and the refunding issues to have a minor portion of proceeds invested at unrestricted yield.

Sometimes an issuer will set up a rebate fund which accumulates funds which will be used to pay future rebate liability. Often, the issuer treats investments of these amounts as the minor portion.

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### Refunded Bonds Issued After the TRA 1986

Refunded bonds issued after the effective date of the TRA 1986 are subject to IRC section 148(e) which describes the minor portion as the **lesser of**:

- five percent of the proceeds of the issue, OR
- \$100,000.

The amount of the permitted minor portion will not change for these bonds when they are refunded.

---

### Refunded Bonds Issued Prior to the TRA 1986

Bonds issued prior to the effective date of the TRA 1986 were permitted to have a minor portion equal to 15 percent of the bond proceeds including the reserve fund.

IRC section 149(d)(3)(A)(v) provides that in the case of refunded bonds issued prior to the TRA 1986, on and after the date of issuance of the refunding bond, the minor portion must be reduced to the lesser of:

- five percent of the proceeds of the refunded bond, or
- \$100,000.

Amounts invested in a reasonably required reserve or replacement fund are not included as part of the minor portion.

---

# Yield Blending in the Computation of Investment Yield

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## Introduction

Assume that City M issues seven percent bonds the proceeds of which will be loaned to a hospital to update its equipment. During the three-year temporary period when the issuer is permitted to invest the proceeds without restriction, market conditions are such that the best return available is five percent. After the expiration of the temporary period, rates skyrocket, so the issuer invests in securities yielding nine percent, thinking that the blended yield from the issuance date to the maturity date will be below seven percent.

Special rules in Treas. Reg. section 1.148-5(b) prevent issuers from investing in this manner, by dividing investments into different classes. Only the yields on investments in the same class can be blended. As we will find out, investments in a project fund **during** the temporary period are in a different class from investments in a project fund **after** the temporary period.

The general rules will be discussed first, followed by a discussion of yield blending of escrow funds.

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*Continued on next page*

## Yield Blending in the Computation of Investment Yield, Continued

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**General Rules**      Treas. Reg. section 1.148-5(b)(2)(i) provides that for purposes of the yield restriction rules of IRC section 148(a) and Treas. Reg. section 1.148-2, **(but NOT for the rebate rules of IRC section 148(f))** the yield is computed separately for each class of investments. Additionally, the yield on each individual investment in each class is blended with other individual investments within the same class, whether or not held concurrently, by treating those investments as a single investment.

In other words, all investments in the same class can be blended together regardless of when they are held, AND despite the five-year computation date for rebate. The single yield is determined over the life of the investments. Investments (other than escrows) are NOT treated this way for rebate purposes. For rebate purposes, class doesn't matter, and the yield is computed for each computation period.

### Example

On 1/1/1999, County R issues bonds to be used for a construction project. On 1/1/2002, the temporary period expires, but some project funds remain unspent and are invested at the bond yield. On 1/1/2003 County R makes the first payment to a sinking fund to provide for principal payments of term bonds maturing in years 2007 through 2009. Additional payments are made on 1/1/2004, 1/1/2005, and 1/1/2006. Amounts in the sinking fund are invested in excess of 0.001 percent of the bond yield. On 1/1/2004, County R calculates the amount of rebate due by including all payments and receipts on ALL funds subject to rebate from 1/1/1999 through 12/31/2003. However, to determine compliance with yield restriction, County R can blend the payments and receipts on the project funds invested **after** the expiration of the temporary period with those in the sinking fund for as long as the funds are invested, despite the computation date. **(See Figures E-4 and E-5)**

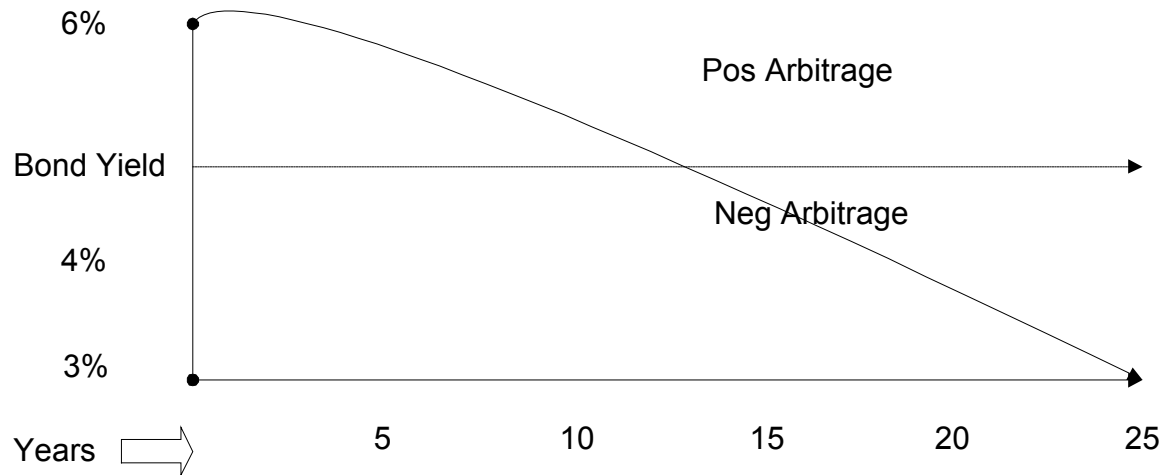
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## Yield Blending in the Computation of Investment Yield, Continued

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Figure E-5: Single Investment Concept for Yield Restriction Purposes



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## Yield Blending in the Computation of Investment Yield, Continued

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**Investment  
Classes**

Treas. Reg. section 1.148-5(b)(2)(ii) provides for the following classes of investments:

- each category of yield-restricted purpose and program investments that is subject to a different definition of “materially higher” under Treas. Reg. section 1.148-2(d)(2),
- yield-restricted nonpurpose investments, AND
- all other nonpurpose investments.

Each of these classes is discussed below.

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**Purpose and  
Program  
Investments**

Accordingly, yield-restricted purpose and program investments would be separated into the following classes:

- qualified student loans,
- tax-exempt loans,
- qualified mortgage loans,
- program investments, other than student loans, AND
- other purpose investments.

The yield on investments in any of the above classes cannot be blended with each other. Only the yield on investments within each class can be blended.

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**Yield-restricted  
Nonpurpose  
Investments**

Generally, the yields on yield-restricted nonpurpose investments can be blended together for yield restriction purposes. This class would include investments in funds such as the following:

- project fund (after the expiration of the temporary period), AND
  - sinking fund (which does NOT meet the definition of a 4R or a BFDS fund).
- 

*Continued on next page*

## Yield Blending in the Computation of Investment Yield, Continued

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### **Special Rule for Escrows and Sinking Funds**

According to Treas. Reg. section 1.148-5(b)(2)(i)(B), the yield on investments in an escrow fund should be able to be blended with the yields of yield-restricted investments in other funds. However, Treas. Reg. section 1.148-5(b)(2)(iii) provides that when there is positive arbitrage in the early part of the escrow, the yield on the escrow can only be blended with a sinking fund which is specially set up to earn negative arbitrage in the later years.

This rule will be discussed in the next section because it is also applicable to rebate.

---

### **Mandatory Blending of All Escrow Funds**

Treas. Reg. section 1.148-5(b)((2)(iv) provides that for all purposes of IRC section 148 (yield restriction and rebate), investments allocable to all proceeds of the refunding issue that are held in one or more refunding escrows will be treated as one investment having a single yield.

For example, the yield on individual investments allocable to sale and investment proceeds of a refunding issue held in a refunding escrow for a prior issue can be blended with the yield on investments allocable to transferred proceeds of that refunding issue that are held in another refunding escrow.

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*Continued on next page*

## Yield Blending in the Computation of Investment Yield,

Continued

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### All Other Nonpurpose Investments

This category consists of non-yield restricted nonpurpose investments. For example:

- those invested during the three-year temporary period for capital projects,
- those invested in the 13-month temporary period for restricted working capital,
- those invested in a reasonably required reserve or replacement fund, AND
- those making up the minor portion.

None of these investments may be blended with those in other classes unless the issuer waives the right to invest in higher yielding investments, as discussed below.

---

### Waiver of Right to Invest in Higher- yielding Investments (in general)

Treas. Reg. section 1.148-2(h) provides that **on or before the issue date**, an issuer may elect to waive the right to invest in higher yielding investments during any temporary period, or as part of a 4R fund.

Additionally, **at any time**, an issuer may waive the right to invest in higher yielding investments as part of a minor portion.

For example, if, on the issuance date, the issuer expects that the yield on investments in the project fund during the first three years will be lower than the bond yield, but that funds invested in the sinking fund will be greater than the bond yield. Normally, the investments in these two funds cannot be blended for yield restriction purposes because they are in separate classes. However, if the issuer waives the right to invest in higher-yielding investments during the project fund temporary period, then these investments can be blended with those in the sinking fund.

Note that although this rule refers to all bond issues, an identical rule is found in Treas. Reg. section 1.148-9(g) which allows for waivers in advance refundings. (However, although waivers generally permit blending of normally non-yield-restricted funds with yield-restricted funds, special rules restrict funds which may be blended with refunding escrows. These rules will be discussed later.)

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*Continued on next page*



## Yield Blending in the Computation of Investment Yield, Continued

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### **Waivers in Advance Refunding Issues**

Waivers can allow the issuer of an advance refunding issue to blend investment yields in the following ways:

- investments in the minor portion can be blended with those in a sinking fund,
- investments in the 4R fund can be blended with those in a sinking fund, or
- investments in the 4R fund can be blended with those in a sinking fund AND the minor portion.

Further, if the advance refunding issue is part of a multipurpose issue, and the other issue is a construction issue, the issuer can also waive the temporary period for the project fund and blend the investment yield with the minor portion and/or 4R fund (if waived) and a sinking fund.

(Although Treas. Reg. section 1.148-9(h) permits multipurpose issues to be treated as separate issues for certain purposes, neither yield restriction nor rebate is one of these purposes.)

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# Yield Reduction Payments

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**General Rules** For purposes of yield restriction, Treas. Reg. section 1.148-5(c) provides a mechanism for “reducing” the yield on certain covered investments by paying the excess yield on the investments to the United States.

For example, if the yield on investments in a project fund is above the definition of “materially higher”, then yield reduction payment could be made to reduce the yield to equal an amount “materially higher” than the bond yield. Earnings above the bond yield but not in excess of “materially higher” can be rebated, unless an exception is met.

No yield reduction payments can be made to reduce the yield on 4R funds because 4R funds are NOT subject to yield restriction. Any earnings above the bond yield must be rebated, unless an exception is met.

The yield reduction rule applies to covered investments delineated in Treas. Reg. section 1.148-5(c)(3).

However, Treas. Reg. section 1.148-5(c)(3)(ii) provides that yield reduction payments do NOT apply to investments allocable to gross proceeds of an advance refunding, other than certain special situations described in Treas. Reg. sections:

- 1.148-5(c)(3)(i)(C) regarding certain transferred proceeds,
  - 1.148-5(c)(3)(i)(F), regarding certain replacement proceeds, AND
  - 1.148-5(c)(3)(i)(E), regarding certain transferred proceeds.
-

## Section 2

### General Rules - Rebate

#### Overview

---

##### Introduction

Earnings on investments of gross proceeds of advance refunding issues that are above the bond yield are subject to the rebate requirement.

The only rebate exceptions available to an advance refunding issue are the small issuer exception and the six-month spending exception.

If proceeds of a prior issue have not met a rebate exception by the transfer date, then they CANNOT meet an exception when they become transferred proceeds of the refunding issue.

Similarly, if proceeds of a prior issue have met a rebate exception, then they are NOT subject to rebate as transferred proceeds of the refunding issue.

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##### In this section

This section contains the following topics:

Topic	See Page
Overview	E-99
Small Issuer Exception from Rebate	E-100
Six-Month Spending Exception from Rebate	E-101
Yield Blending in the Computation of Rebate	E-105

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# Small Issuer Exception to Rebate

<b>Introduction</b>	<p>Similar to other small issues, refunding bonds can qualify for the small issuer exception to rebate if certain requirements are met. Although this module discusses only advance refundings, this section also applies to current refundings.</p>
<b>Requirements</b>	<p>IRC section 148(f)(4)(D)(v) provides that in order to meet this exception from rebate, a refunding bond (or any portion of a bond issued to refund another bond) must meet these requirements:</p> <ul style="list-style-type: none"><li>• the aggregate face amount of the issue cannot exceed \$5M,</li><li>• each <b>refunded</b> bond met the requirements for this exception,</li><li>• if the average maturity of the refunded bonds was over three years, then the average maturity date of the <b>refunding</b> bonds cannot be later than the average maturity date of the <b>refunded</b> bonds, AND</li><li>• the refunding bond cannot have a maturity date which is more than 30 years after the issuance date of the original bond.</li></ul> <p>Because this exception only applies to bonds issued after the effective date of the Tax Reform Act of 1986, IRC section 148(f)(4)(D)(vi) provides special rules for refundings of bonds issued prior to the TRA 1986, which technically could not have qualified for this exception.</p>
<b>Reasonably Required Reserve and Replacement Fund</b>	<p>In an advance refunding issue, amounts in the 4R fund can be exempt from rebate only under the small issuer exception.</p>
<b>Bona Fide Debt Service Fund</b>	<p>Amounts in the BFDS fund of a refunding issue are exempt from rebate if the advance refunding issue meets the small issuer exception.</p>
<b>Effect of Advance Refunding on Subsequent Issues</b>	<p>Treas. Reg. section 1.148-8(c)(3) provides that the amount of an advance refunding issue is taken into account in applying the \$5 million size limitation to subsequent issues.</p>

## Six-Month Spending Exception to Rebate

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### Refunding Issue

According to Treas. Reg. section 1.148-7(b)(1)(ii), the only spending exception applicable to **refunding** issues is the six-month exception.

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### Amounts NOT Treated as Gross Proceeds

Treas. Reg. section 1.148-7(c)(3) provides that the following amounts are NOT treated as gross proceeds for purposes of the six-month exception:

- amounts in a BFDS fund,
- amounts in a reasonably required reserve and replacement fund,
- amounts that, as of the issue date, are not reasonably expected to be gross proceeds, but that become gross proceeds after the end of the six-month spending period,
- amounts representing sale or investment proceeds derived from payments under any purpose investment of the issue, AND
- amounts representing repayments of grants financed by the issue. **(See Treas. Reg. section 1.148-6(d)(4))**

Therefore, these amounts do NOT have to be spent for the refunding issue to meet the six-month spending exception.

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### Reasonably Required Reserve and Replacement Fund

Although amounts in the 4R fund do not have to be spent for the refunding issue to meet the six-month spending exception, they are not exempt from rebate even if the refunding issue meets this exception. In fact, the rebate requirement must be met for amounts in the 4R fund for the refunding issue to meet the six-month spending exception.

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### Bona Fide Debt Service Fund

Amounts in the BFDS fund do not have to be spent for the refunding issue to meet the six-month spending exception, AND they are exempt from rebate if the refunding issue meets this exception.

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## Six-Month Spending Exception to Rebate, Continued

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### **Special Transferred Proceeds Rule for Refunded Issues**

Treas. Reg. section 1.148-7(b)(1)(i) provides that proceeds of the prior issue that become transferred proceeds of the refunding issue continue to be treated as unspent proceeds of the prior issue. Therefore, if the prior issue satisfied one of the spending exceptions, the proceeds of the prior issue that are excepted from rebate under that spending exception are not subject to rebate either as proceeds of the prior issue or as transferred proceeds of the refunding issue.

#### Example

In 1999, City F advance refunds an issue originally issued in 1997. The 1997 issue met the two-year exception to rebate. The following 1997 proceeds remain unspent on the issuance date of the refunding bonds:

- Amounts equal to less than five percent of ACP in the project fund,
- sale proceeds and earnings thereon in the 4R fund, AND
- project revenues in the BFDS fund.

Rebate is not required on amounts equal to less than five percent of ACP in the project fund (as long as the amounts are spent within three years of the issue date of the 1997 issue.) Even if these proceeds transfer to the 1999 issue, they will not be subject to rebate.

After the two-year period, earnings on sale proceeds in the 4R fund are subject to rebate as gross proceeds of the refunded issue. Upon transfer, they are subject to rebate as gross proceeds of the refunding issue.

Earnings on amounts in the BFDS fund are not required to be spent, nor are they subject to rebate, as long as the two-year spending exception is met. This is true both before and after transfer to the refunding issue.

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## Six-Month Spending Exception to Rebate, Continued

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### **Special Transferred Proceeds Rule for Refunding Issues**

Treas. Reg. section 1.148-7(b)(1)(ii) provides, generally, that **for purposes of applying the six-month exception to a refunding issue**, proceeds of the prior issue that become transferred proceeds of the refunding issue are not treated as proceeds of the refunding issue, and need not be spent for the refunding issue to satisfy that spending exception.

Even if the refunding issue qualifies for the six-month spending exception, those transferred proceeds are subject to rebate as proceeds of the refunding issue unless an exception to rebate applied to those proceeds as proceeds of the prior issue.

#### Example

Prior Issue A is advance refunded by Refunding Issue B. On the date of issuance of Issue B, \$5M remained in the project fund of Issue A. Issue B satisfies the six-month spending exception because all of the proceeds (except for the transferred proceeds) are used to redeem the prior issue within six-months of the issuance date.

The \$5M in unspent proceeds does not jeopardize Issue B's satisfaction of the spending exception. Further, unless an exception to rebate applies to the unspent proceeds as proceeds of the prior issue, they will be subject to rebate as proceeds of the refunding issue.

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### **Exception for Certain Transferred Proceeds Not Treated as Gross Proceeds**

Treas. Reg. section 1.148-7(b)(1)(ii)(B) provides that for purposes of applying the six-month exception, the following proceeds are generally treated as gross proceeds of the refunding issue, and must be spent within six months of the issue date, unless they are used in a manner that does not cause those amounts to be gross proceeds, as defined in Treas. Reg. section 1.148-7(c)(3):

- those transferred proceeds of the refunding issue excluded from the gross proceeds of the prior issue under the special definition of gross proceeds in Treas. Reg. section 1.148-7(c)(3), AND
  - proceeds that transferred from a prior taxable issue.
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## Six-Month Spending Exception to Rebate, Continued

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### Example

In 1999, City X advance refunds bonds which were originally issued in 1998. The 1998 bonds met the six-month exception to rebate by spending all of the required amounts in the project fund within the required time. However, amounts in the BFDS and 4R funds were not spent, but, in accordance with Treas. Reg. section 1.148-7(c)(3) were not required to be spent. During the time when these amounts are considered to be gross proceeds of the refunded issue, amounts in the 4R fund are subject to rebate, but the amounts in the BFDS fund are not.

When the proceeds in the 4R or BFDS fund transfer to the refunding issue, **unless they are maintained in a BFDS or 4R fund**, they must be spent in order for the refunding issue to meet the six-month exception.

If the amounts do not transfer within six-months of the issuance date of the refunding bonds, then the amounts do not affect the refunding issue for purposes of applying the six-month exception. The amounts continue to be treated as proceeds of the prior issue during this time. Thus, proceeds in the 4R fund are subject to rebate, but the proceeds in the BFDS fund are not.

This same treatment will come into play if the refunded issue met the eighteenth-month exception to rebate. **(See Treas. Reg. section 1.148-7(d)(3)).**

The rule would NOT apply to refunded issues which meet the two-year exception to rebate, because that exception does not refer to the definition of gross proceeds set forth in Treas. Reg. section 1.148-7(c)(3). Therefore, transferred proceeds from a refunded issue which met the two-year exception to rebate would not be required to be spent for the refunding issue to meet the six-month exception.

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### Series of Refundings

Treas. Reg. section 1.148-7(c)(4) provides that if the principal purpose of a series of refunding issues is to exploit the difference between taxable and tax-exempt interest rates by investing proceeds during the temporary periods provided in Treas. Reg. section 1.148-9(d), the six-month spending period for all issues in the series begins on the issue date of the first issue in the series.

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# Yield Blending in the Computation of Rebate

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## Introduction

Treas. Reg. section 1.148-3(b) provides that the rebate amount for an issue is the excess of the future value of all receipts on nonpurpose investments over the future value of all payments on nonpurpose investments, as of the computation date.

Therefore, all payments and receipts **during the computation period** are lumped together for rebate purposes, and class doesn't matter. Generally, anticipated payments and receipts beyond the computation date are NOT taken into account for rebate purposes. In other words, generally, the single investment concept that applies for yield restriction purposes does NOT apply for rebate purposes. (Remember that the yield restriction rules are based on reasonable expectations over the life of the bonds, while the rebate rules are based on actual events.)

The only investments that are excluded from the computation are those that are exempt from rebate.

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## The Single Investment Concept Does Apply for Escrow Funds

Treas. Reg. section 1.148-5(b)(2)(iv) provides that for all purposes of IRC section 148, **(both yield restriction and rebate)** investments allocable to proceeds of the refunding issue that are held in one or more refunding escrows will be treated as a single investment having a single yield, whether or not held concurrently. Proceeds include sale proceeds, investment proceeds, and transferred proceeds of the refunding issue, but NOT replacement proceeds.

### Example

In 1992, County D issues bonds to advance refund bonds issued in 1985. The 1985 bonds were issued to advance refund a 1983 issue. Sale proceeds of the 1990 issue are placed into an escrow fund. As principal payments are made on the 1985 issue from the 1992 escrow, proceeds of the 1985 issue in its escrow fund become transferred proceeds of the 1992 issue. The yield on the investments of the transferred proceeds **must be** blended with the yield on investments of the 1992 escrow for **both** yield restriction and rebate purposes.

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## Yield Blending in the Computation of Rebate, Continued

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### Single Investment Concept Does Apply for Escrow Funds, continued

#### Example

County Q issues bonds to advance refund a prior issue. Sale proceeds of the issue are invested in SLGs and held in a refunding escrow. On the issuance date, short-term market rates are higher than the bond yield. The issuer structures the escrow so that short-term investments earn a yield above the bond yield. As these investments mature, the issuer plans to reinvest the proceeds and earnings in zero percent SLGs until needed for redemption. The single investment rule requires the yields on these investments to be blended for both yield restriction **and rebate**, producing a single yield, even though they are held consecutively.

#### Example

County M issues bonds to advance refunding two outstanding issues. After payment of issuance costs, the proceeds are split and deposited into two separate escrow funds. The yields on these two escrow funds can be blended for yield restriction and rebate.

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### Example

Bruce's example

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### Special Permissive Rule for Refunding Escrows and Related Sinking Funds

Treas. Reg. section 1.148-5(b)(2)(iii) provides that for **all purposes of IRC section 148**, an issuer **may** treat all of the yield-restricted nonpurpose investments in a refunding escrow and a sinking fund that is reasonably expected as of the issue date to be maintained to reduce the yield on investments in the refunding escrow as a single investment, having a single yield.

The definition of "sinking fund" is narrowly interpreted to include only redemption funds, and to exclude BFDS and 4R funds.

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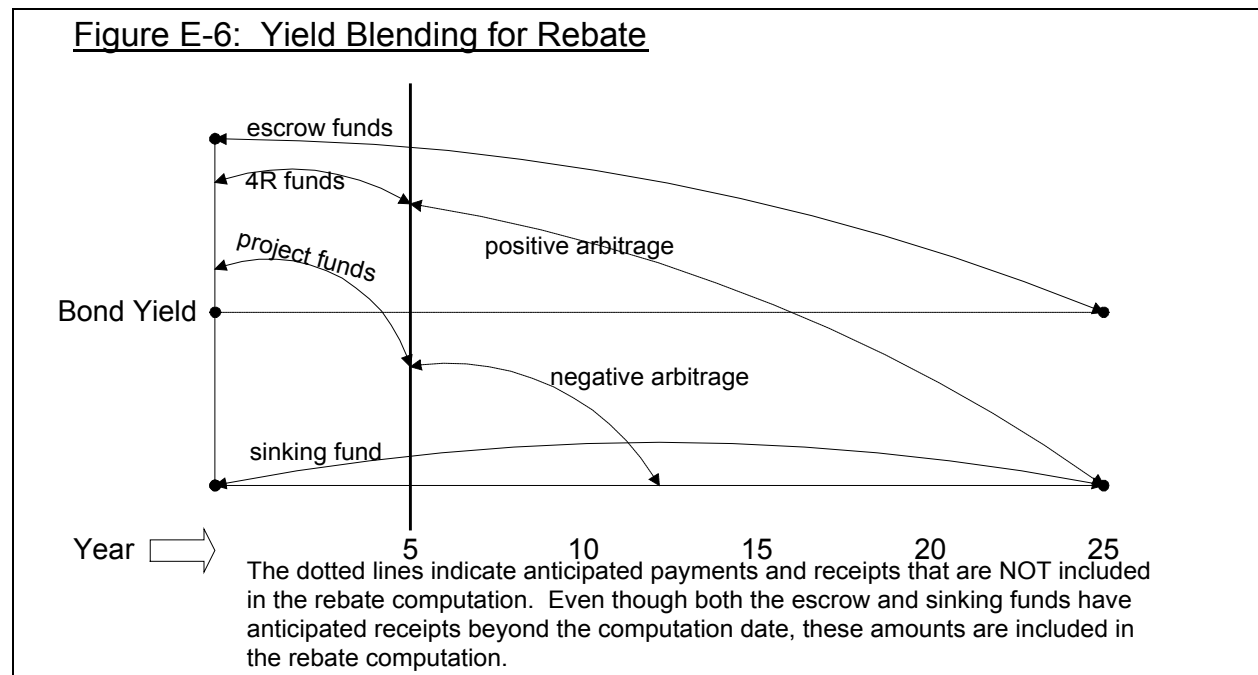
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## Yield Blending in the Computation of Rebate, Continued

### Putting it All Together

Figure E-6 illustrates yield blending for rebate. The illustration shows the payments and receipts that will be included in the rebate computation. Note that although amounts in the project and 4R funds are invested beyond the five-year computation date, only the payments and receipts relative to the five-year computation period are included in the first rebate computation period.

Contrast this treatment with that of the escrow and sinking fund (assuming that the sinking fund meets Treas. Reg. section 1.148-5(b)(2)(ii)). All of the payments and receipts relative to the first computation period are included, as well as anticipated payments and receipts to be received beyond the end of the first computation period. In this way, escrow funds and their specially set-up sinking funds are treated for rebate purposes in the same manner as all funds are treated for yield restriction purposes.



# Comprehensive Example of Yield Blending

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## Facts

On October 15, 1999, County Y issues \$83M principal amount of bonds. Part of the proceeds are used to advance refund a prior issue of bonds, while the remainder of the proceeds are used for a construction project. The yield on the bonds is 7.5 percent. On October 15, 1999, after payment of issuance costs, County Y establishes the following funds in the following amounts:

Refunding Escrow	\$48,751,100
Project Fund	25,000,000
4R Fund	8,000,000

### Refunding Escrow:

Amounts in the escrow fund are invested in SLGs, at various interest rates and maturities, designed to be available when needed to pay debt service and redemption of the prior bonds. The redemption date of the prior bonds is October 1, 2004.

### Project Fund

County Y expects that the project will take three years to complete. \$25M is invested in open-market securities. \$10M is invested for six months and is expected to be spent at that time. \$15M is invested for three years and is expected to be spent at that time.

### 4R Fund

Amounts in the 4R fund are invested in open-market securities for an initial term of five years, and then reinvested until the redemption date of October 1, 2019.

### Sinking Fund

On the issuance date, County Y establishes this fund with \$1.5M of its own revenues, and reasonably expects to maintain this fund to reduce the yield on the escrow. This initial deposit is used for debt service on October 1, 2004. Additional investments in 0 percent SLGs are made on October 1, 2005, 2006, and 2007. The funds will be used to redeem term bonds maturing on October 15, 2019.

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## Comprehensive Example of Yield Blending, Continued

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### Analysis

#### **Yield Restriction**

Receipts from the **Escrow Fund** are shown in Table 1. The two earliest maturing investments were invested in 0 percent SLGs. The remainder were invested at various interest rates. Table 2 shows that the yield of the escrow fund for yield restriction purposes is 7.62773 percent. Note that the yield computation begins on the issuance date and ends on the redemption date of the prior bonds. This yield is 0.0012773 percent higher than the bond yield. Since the yield exceeds the bond yield by more than 0.001 percent, without the benefit of yield blending offered by Treas. Reg. section 1.148-5(b)(2)(i) and (ii), these bonds would be arbitrage bonds. (Yield reduction payments are NOT permitted.) However, these rules permit the yields of the investments of the escrow and sinking funds to be blended because they are both in the same class (yield-restricted nonpurpose investments.) Table 3 shows that the blended yield of these investments is 6.71091 percent, well below the bond yield.

Yields on the project and 4R funds are NOT included, because they are not yield-restricted (a separate class.)

#### **Rebate**

Table 4 shows the amount of rebate that would be due were it not for Treas. Reg. section 1.148-5(b)(iii). Generally, payments and receipts on investments subject to rebate are included from the issuance date only to the computation date. Class doesn't matter here, and all investments are combined.

Project funds, although spent within the three-year temporary period, are NOT spent fast enough to meet a rebate exception. Therefore, all earnings during the temporary period are subject to rebate.

Even though amounts in the 4R fund are exempt from the yield restriction rules, all earnings above the bond yield must be rebated.

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## Comprehensive Example of Yield Blending, Continued

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### Analysis, continued

However, Treas. Reg. section 1.148-5(b)(iii) permits investments in the escrow and sinking fund (which meets the requirements) to be treated as a single investment having a single yield. Therefore, payments and receipts beyond the computation date are included in the computation, as shown in Table 5. When this future cash activity is included in the computation, there is no rebate due. Table 6 shows how this future cash activity is present-valued back to the computation date at the blended yield of the escrow and sinking fund.

Even if the sinking fund was not established, all payments and receipts (even those beyond the computation date) of the escrow fund itself would be included in the rebate computation, because Treas. Reg. section 1.148-5(b)(2)(iv) **requires** that investments in the escrow be treated as single investment having a single yield.

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## Comprehensive Example of Yield Blending, Continued

TABLE 1: CASH FLOWS FROM NONPURPOSE INVESTMENTS												
	ESCROW			SINKING FUND			PROJECT			4R		
DATE	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL	PRINCIPAL	INTEREST	TOTAL
4/1/00	1,882,800	1,531,644	3,414,444			-	10,000,000	850,000	10,850,000			
10/1/00	243,400	1,659,281	1,902,681		200,000	200,000					754,000	754,000
4/1/01	1,808,300	1,659,281	3,467,581			-						-
10/1/01	244,900	1,600,656	1,845,556		285,000	285,000					744,000	744,000
4/1/02	1,933,000	1,592,494	3,525,494			-						-
10/1/02	255,600	1,526,927	1,782,527		300,000	300,000	<u>15,000,000</u>	<u>1,500,000</u>	<u>16,500,000</u>		744,000	744,000
4/1/03	2,069,400	1,518,136	3,587,536			-						-
10/1/03	266,900	1,446,142	1,713,042		300,000	300,000					760,000	760,000
4/1/04	2,221,200	1,436,765	3,657,965			-						-
10/1/04	<u>37,825,600</u>	<u>2,706,196</u>	<u>40,531,796</u>	1,500,000	-	1,500,000				8,000,000	750,000	8,750,000
10/1/04										(8,000,000)		(8,000,000)
10/1/05						-					744,000	744,000
4/1/06						-						-
10/1/06						-					744,000	744,000
4/1/07						-						-
10/1/07						-					744,000	744,000
10/1/08						-					744,000	744,000
10/1/09					-	-					744,000	744,000
10/1/19				<u>6,000,000</u>		<u>6,000,000</u>				<u>8,000,000</u>	<u>750,000</u>	<u>8,750,000</u>
TOTAL	48,751,100	16,677,521	65,428,621	7,500,000	1,085,000	8,585,000	25,000,000	2,350,000	27,350,000	8,000,000	8,222,000	16,222,000

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## Comprehensive Example of Yield Blending, Continued

**TABLE 2: YIELD OF ESCROW FUND**

ISSUE DATE                      10/15/99 COMP INTERVALS                2 YIELD                                7.62773%			
<b>DATE</b>	<b>CASH FLOWS</b>	<b>PRESENT VALUE</b>	<b>DAYS</b>
10/15/99	(48,751,100.00)	(\$48,751,100.00)	0
4/1/00	3,414,444	\$3,298,594.55	166
10/1/00	1,902,681	\$1,770,596.34	346
4/1/01	3,467,581	\$3,108,313.63	526
10/1/01	1,845,556	\$1,593,566.10	706
4/1/02	3,525,494	\$2,932,293.74	886
10/1/02	1,782,527	\$1,428,131.66	1066
4/1/03	3,587,536	\$2,768,681.73	1246
10/1/03	1,713,042	\$1,273,472.04	1426
4/1/04	3,657,965	\$2,619,422.71	1606
10/1/04	<u>40,531,796</u>	<u>\$27,958,027.50</u>	1786
<b>TOTAL</b>	16,677,522	(0)	

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## Comprehensive Example of Yield Blending, Continued

**TABLE 3: YIELD OF ESCROW AND SINKING FUND**

ISSUE DATE		10/15/99	
COMP INTERVALS		2	
YIELD		6.71091%	
DATE	CASH FLOWS	PRESENT VALUE	DAYS
10/15/99	(48,751,100)	(\$48,751,100.00)	0
10/15/99	(1,500,000)	(\$1,500,000.00)	0
4/1/00	3,414,444	\$3,312,084.45	166
10/1/00	1,902,681	\$1,785,722.52	346
10/1/00	200,000	\$187,705.93	346
4/1/01	3,467,581	\$3,148,771.86	526
10/1/01	1,845,556	\$1,621,468.05	706
10/1/01	285,000	\$250,395.22	706
4/1/02	3,525,494	\$2,996,868.83	886
10/1/02	1,782,527	\$1,466,055.66	1066
10/1/02	300,000	\$246,737.75	1066
4/1/03	3,587,536	\$2,854,809.91	1246
10/1/03	1,713,042	\$1,318,911.11	1426
10/1/03	300,000	\$230,977.02	1426
4/1/04	3,657,965	\$2,724,919.32	1606
10/1/04	40,531,796	\$29,213,025.42	1786
10/1/04	1,500,000	\$1,081,115.14	1786
10/1/05	(2,000,000)	(\$1,349,409.79)	2146
10/1/06	(2,000,000)	(\$1,263,214.29)	2506
10/1/07	(2,000,000)	(\$1,182,524.66)	2866
10/1/19	<u>6,000,000</u>	<u>\$1,606,680.57</u>	7186
TOTAL	68,013,622	0	

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## Comprehensive Example of Yield Blending, Continued

**TABLE 4: REBATE COMPUTATION WITHOUT BLENDING**

COMPUTATION DATE 10/15/04			
COMP INTERVALS 2			
YIELD 7.50000%			
DATE	CASH FLOWS	FUTURE VALUE	DAYS
10/15/99	(48,751,100.00)	(70,447,481.75)	1800
10/15/99	(8,000,000.00)	(11,560,351.54)	1800
10/15/99	(25,000,000.00)	(36,126,098.57)	1800
10/15/99	(1,500,000.00)	(2,167,565.91)	1800
4/1/00	14,264,444.00	19,924,678.21	1634
10/1/00	2,656,681.00	3,576,743.30	1454
10/1/00	200,000.00	269,264.04	1454
4/1/01	3,467,581.00	4,499,734.31	1274
10/1/01	2,589,556.00	3,238,899.40	1094
10/1/01	285,000.00	356,465.10	1094
4/1/02	3,525,494.00	4,250,147.73	914
10/1/02	19,026,527.00	22,108,305.78	734
10/1/02	300,000.00	348,591.82	734
4/1/03	3,587,536.00	4,017,946.07	554
10/1/03	2,473,042.00	2,669,630.91	374
10/1/03	300,000.00	323,847.83	374
4/1/04	3,657,965.00	3,806,020.91	194
10/1/04	41,281,796.00	41,400,167.93	14
10/1/04	8,000,000.00	8,022,939.30	14
10/1/04	1,500,000.00	1,504,301.12	14
10/15/00	(1,000.00)	(1,342.47)	1440
10/15/01	(1,000.00)	(1,247.18)	1080
10/15/02	(1,000.00)	(1,158.65)	720
10/15/03	(1,000.00)	(1,076.41)	360
10/15/04	(1,000.00)	(1,000.00)	0
10/15/04	-	-	
<b>REBATE DUE</b>		<b>\$ 10,361.27</b>	

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## Comprehensive Example of Yield Blending, Continued

**TABLE 5: REBATE COMPUTATION WITH BLENDING**

COMPUTATION DATE 10/15/04			
COMP INTERVALS 2			
YIELD 7.50000%			
<u>DATE</u>	<u>CASH FLOWS</u>	<u>FUTURE VALUE</u>	<u>DAYS</u>
10/15/99	(48,751,100.00)	(70,447,481.75)	1800
10/15/99	(8,000,000.00)	(11,560,351.54)	1800
10/15/99	(25,000,000.00)	(36,126,098.57)	1800
10/15/99	(1,500,000.00)	(2,167,565.91)	1800
4/1/00	14,264,444.00	19,924,678.21	1634
10/1/00	2,646,681.00	3,563,280.10	1454
10/1/00	200,000.00	269,264.04	1454
4/1/01	3,467,581.00	4,499,734.31	1274
10/1/01	2,589,556.00	3,238,899.40	1094
10/1/01	285,000.00	356,465.10	1094
4/1/02	3,525,494.00	4,250,147.73	914
10/1/02	19,026,527.00	22,108,305.78	734
10/1/02	300,000.00	348,591.82	734
4/1/03	3,587,536.00	4,017,946.07	554
10/1/03	2,473,042.00	2,669,630.91	374
10/1/03	300,000.00	323,847.83	374
4/1/04	3,657,965.00	3,806,020.91	194
10/1/04	41,281,796.00	41,400,167.93	14
10/1/04	8,000,000.00	8,022,939.30	14
10/1/04	1,500,000.00	1,504,301.12	14
10/15/00	<u>(1,000.00)</u>	<u>(1,342.47)</u>	1440
10/15/01	<u>(1,000.00)</u>	<u>(1,247.18)</u>	1080
10/15/02	<u>(1,000.00)</u>	<u>(1,158.65)</u>	720
10/15/03	<u>(1,000.00)</u>	<u>(1,076.41)</u>	360
10/15/04	<u>(1,000.00)</u>	<u>(1,000.00)</u>	0
10/15/04	<u>(3,044,207.00)</u>	<u>(3,044,207.00)</u>	0
	(NOTE 1)		
<b>REBATE DUE</b>		<b>\$ (3,033,845.73)</b>	
<b>NOTE 1: SEE TABLE 6 FOR COMPUTATION OF (3,044,207)</b>			

*Continued on next page*

## Comprehensive Example of Yield Blending, Continued

**TABLE 6: PV OF PAYMENTS/RECEIPTS OF ESCROW/SF AFTER COMP DATE**

COMPUTATION DATE		10/15/04	
COMP INTERVALS		2	
COMP INTERVALS		6.71091%	
<u>DATE</u>	<u>CASH FLOWS</u>	<u>PRESENT VALUE</u>	<u>DAYS</u>
10/1/05	(2,000,000.00)	(\$1,877,059.37)	346
10/1/06	(2,000,000.00)	(\$1,757,159.57)	706
10/1/07	(2,000,000.00)	(\$1,644,918.54)	1066
10/1/19	<u>6,000,000.00</u>	<u>\$2,234,930.25</u>	5386
TOTAL	-0-	(3,044,207)	

## Section 3

### Treatment of Prior Issue Proceeds

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#### Overview

On the issuance date of the refunding bonds, if there are unspent proceeds of the prior issue, the issuer must decide what to do with them. This section discusses some of the options that the issuer has, along with the ramifications of those options.

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#### In this section

This section contains the following topics:

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Sinking Fund	E-129
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# Required Reserve and Replacement Fund

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## **Introduction**

Regardless of whether the prior issue was a new money or a refunding issue, generally a 4R fund would have been established on the issuance date of the bonds. When the prior issue is refunded, the issuer must decide what to do with any amounts that remain in this fund.

Below are some of the options that the issuer has regarding amounts in a prior issue reserve fund:

- amounts in the reserve fund can be spent prior to becoming transferred proceeds of the refunding issue,
  - amounts can remain in the reserve fund for the prior issue,
  - amounts can be used as a reserve fund for the refunding issue, OR
  - amounts can be deposited into the refunding escrow.
- 

## **Amounts in the Reserve Fund Can be Spent Prior to Becoming Transferred Proceeds**

Amounts in the prior issue 4R fund can be spent prior to becoming transferred proceeds. If these amounts are proceeds of the prior issue, they can be spent on debt service or can even be used to pay issuance costs of the refunding issue.

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*Continued on next page*

## Required Reserve and Replacement Fund, Continued

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### **Reserve Fund of Prior Issue Maintained**

When an escrow fund is established for the prior issue, a reserve fund is no longer necessary for the prior issue. Although there is no rule (statutory or otherwise) prohibiting them, the regulations do discourage them. Treas. Reg. section 1.148-9(e) provides that in a refunding, both the refunded and the refunding issues can have 4R funds, but the funds are aggregated for purposes of the size limitations.

In addition, the size limitations are based on the refunding issue only. Therefore, if amounts remain in the prior issue's 4R fund, these amounts can remain there only if proceeds of the refunding issue are reduced to meet the size limitations.

If the 4R fund exceeds the size limitations, the excess must be yield restricted. Investments of excess funds attributable to the prior issue reserve fund must not exceed 0.125 percent (or 0.001 percent if replacement proceeds) of the yield of the prior issue until the funds transfer to the refunding issue. A portion of the funds will transfer to the refunding issue when refunding issue proceeds are used to make principal payments on the prior issue. When the funds transfer to the refunding issue, investments on the funds must not exceed 0.125 percent of the yield on the refunding issue.

Yield reduction payments can be used to comply with the arbitrage rules prior to the transfer date.

If the reserve fund meets the size limitations, then the funds can be invested without restriction under the rules for reserve funds.

As there is no special exception from rebate for 4R funds, (except for the quasi-exception for available construction proceeds under Treas. Reg. section 1.148-7(i)(2)) once the funds become transferred proceeds of the refunding issue, they will be subject to rebate at the yield of the refunding issue.

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*Continued on next page*

## Required Reserve and Replacement Fund, Continued

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**Amounts in  
Prior Issue  
Reserve Fund  
are Used as a  
Reserve for the  
Refunding  
Issue**

Often the issuer simply uses the prior issue 4R fund as a 4R fund for the refunding issue. As long as the fund meets the requirements of a reasonably required reserve and replacement fund, amounts can be invested at an unrestricted yield.

For rebate purposes, as the funds become transferred proceeds of the refunding issue, they will become subject to rebate at the yield of the refunding issue. Prior to becoming transferred proceeds, even though they are technically replacement proceeds of the refunding issue, the amounts continue to be treated as sale proceeds (unless they are replacement proceeds) of the prior issue. (Remember the one-issue rule?)

These proceeds retain their character as transferred proceeds (rather than replacement proceeds) while in the 4R fund. (Think of the universal cap.)

If, however, amounts in the prior 4R fund were issuer equity or revenues, they retain their character as replacement proceeds, but immediately become gross proceeds of the refunding issue, (because they may be used to pay debt service on the refunding issue) and are subject to rebate as such at the refunding issue bond yield. Remember that as replacement proceeds, they do not become transferred proceeds.

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*Continued on next page*



## Required Reserve and Replacement Fund, Continued

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### **Reserve Funds are Deposited into the Refunding Escrow**

Depositing prior issue proceeds (of any kind) into the refunding escrow is probably the most complicated option.

When amounts from different sources are deposited into a refunding escrow, the resulting escrow fund is referred to as a “mixed escrow.” This “mixed escrow” then becomes subject to the allocation rules regarding mixed escrows set forth in Treas. Reg. section 1.148-9(c)(2). Remember that the mixed escrow rules specify the order in which prior issue funds must be spent. After amounts from the BFDS and project funds have been spent, then amounts from the 4R fund can be spent, as long as no principal payments have been made yet from the refunding bond proceeds. If not allocated prior to a principal payment, then these funds must be spent ratably with refunding bond proceeds. Because they are at the end of the line in priority, these amounts have a good chance of becoming transferred proceeds of the refunding issue.

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### **Treatment of Prior Issue Proceeds in the Refunding Escrow**

When prior issue proceeds are placed in the refunding escrow, their treatment for arbitrage purposes depends on their characterization.

Prior to becoming transferred proceeds, the amounts will continue to be treated as sale proceeds of the prior issue for arbitrage purposes because they have not yet been allocated to the refunding issue. This means that they are required to be yield restricted to no more than 0.001 percent of the prior bond yield. (They no longer receive the shelter from the yield restriction rules offered by the 4R fund AND they are in the escrow fund now, which requires yield restriction at 0.001 percent.) Upon transfer, they retain their character as transferred proceeds, but because they are now proceeds of the refunding issue, they must be yield restricted to no more than 0.001 percent of the refunding bond yield.

If a deallocation is required under the universal cap, these amounts are treated as transferred proceeds, rather than replacement proceeds. (Since they were originally sale proceeds of the prior issue, they could not now be replacement proceeds of the prior issue.)

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*Continued on next page*

## Required Reserve and Replacement Fund, Continued

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### **Treatment of Prior Issue Revenues in the Refunding Escrow**

If the amounts in the prior issue 4R fund were issuer equity or revenues, and are placed in the escrow fund, they retain their character as replacement proceeds but now must be yield restricted to no more than 0.001 percent of the prior issue bond yield.

As replacement proceeds of the prior issue, they will not have an opportunity to become transferred proceeds. (According to Treas. Reg. section 1.148-9(b)(1), only **proceeds** of the prior issue transfer, and replacement proceeds are NOT proceeds.)

Nor do they become gross proceeds of the refunding issue because they are not used to pay debt service on the refunding issue. (Contrast this treatment with issuer revenues or equity from the prior issue 4R fund that are deposited into the 4R fund of the refunding issue.)

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## Bona Fide Debt Service Fund

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### Introduction

Since the prior issue is now secured by the refunding escrow, the BFDS fund is no longer needed. When amounts remain in the bona fide debt service fund of the prior issue, some of the issuer's options are:

- amounts can be used to pay the earliest debt service on the prior issue,
  - amounts can be deposited into the bona fide debt service fund of the refunding issue, OR
  - amounts can be deposited into the refunding escrow.
- 

### Amounts Can be Used to Pay the Earliest Debt Service on the Prior Issue

Using amounts in the prior issue debt service fund to pay the next debt service payment on the prior issue is probably the simplest and most preferred way to use these funds. Since the amounts in the fund generally consist of revenues which were deposited specifically for debt service, the funds would be used for their intended purpose.

Since amounts in the bona fide debt service fund have only a 13-month temporary period, it is in the issuer's best interests to spend these funds to avoid having to yield restrict them.

Spending the proceeds in this manner also avoids the transferred proceeds and complies with the mixed escrow rules.

---

### Amounts Can be Deposited into the Bona Fide Debt Service Fund of the Refunding Issue

Issuers should use caution when using this option. Amounts in the prior issue debt service fund are considered to be "short-term proceeds," meaning that they are expected to be spent relatively quickly.

Moving these funds into the debt service fund of the refunding issue requires that other funds (probably from the escrow) be used to make the debt service payments on the prior issue, while the prior issue debt service funds are saved until a later time for debt service on the refunding issue.

The mixed escrow and transferred proceeds rules are designed to prevent issuers from investing prior issue proceeds at a higher yield, while using refunding proceeds for current liabilities. Using refunding proceeds while prior issue proceeds are available could be viewed as an abusive arbitrage device, as described in Treas. Reg. section 1.148-10.

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*Continued on next page*

## Bona Fide Debt Service Fund, Continued

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### **Amounts Can be Deposited into the Refunding Escrow**

If amounts from the prior issue debt service fund are deposited into the refunding escrow, they become subject to the mixed escrow and possibly the transferred proceeds rules, as were discussed previously.

Treas. Reg. section 1.148-9(c)(2)(ii)(A) requires that amounts from a bona fide debt service fund (along with project funds) be allocated to the earliest maturing investments, and therefore should be considered to be spent before other amounts in the escrow.

Usually, amounts in the BFDS fund are issuer revenues (replacement proceeds). Therefore, they will not become transferred proceeds of the refunding issue. However, since the 13-month temporary period afforded these proceeds as BFDS funds expires on the issuance date of the refunding dates, these amounts must immediately be yield restricted to no more than 0.001 percent of the prior issue bond yield. (Their treatment is similar to that of revenues from the prior 4R fund deposited into the escrow fund.)

If amounts in the BFDS fund are sale proceeds of the prior issue, they continue to be treated as sale proceeds of the prior issue (until transferring), but must be yield restricted to no more than 0.001 percent (because they are in the escrow fund) of the prior issue bond yield.

However, because of their high priority in the mixed escrow rules, sale proceeds which were originally in the BFDS fund have only a slight chance of becoming transferred proceeds.

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# Project Funds

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## Introduction

Unspent project funds of the prior issue may be available when the refunding bonds are issued. The issuer has the following options, among others, regarding these funds:

- amounts in the project fund can remain in the project fund and continue to be used for the governmental purposes of the issue,
  - amounts in the project fund can be deposited into the refunding escrow, OR
  - amounts in the project fund can be used to make the earliest debt service payments on the refunded issue.
- 

## Amounts in the Project Fund Continue to be Used for the Governmental Purposes of the Issue

When amounts remain in the project fund as of the date of issuance of the refunding bonds, these amounts usually stay in the fund and continue to be used for the original intended purposes of the issue.

If the initial temporary period expired prior to issuance of the refunding bonds, these amounts will already be yield restricted to no more than 0.125 percent of the prior issue bond yield. However, once the refunding issue proceeds are used to pay principal on the prior issue, a portion of these funds will transfer to the refunding issue. At that time, they become gross proceeds of the refunding issue (as transferred proceeds) and must be yield restricted to no more than 0.125 percent of the yield on the refunding issue.

When the funds transfer, they also become subject to rebate based on the refunding issue's yield.

Remember that even if the initial temporary period has not yet expired for these funds, it will automatically terminate on the issuance date of the refunding bonds. Therefore, the amounts have to be yield restricted either way, and might as well be spent.

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## Project Funds, Continued

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**Amounts in the Project Fund Can be Deposited into the Refunding Escrow**

If the amounts in the project fund are deposited into the refunding escrow, then they become subject to the mixed escrow rules, as discussed previously.

Remember that Treas. Reg. section 1.148-9(c)(2)(ii)(A) **requires** that when project funds are deposited into a refunding escrow, they (along with funds from the BFDS) must be allocated to the earliest maturing investments in the mixed escrow. Since these funds are considered to be available for spending, they should be considered to be spent first on prior issue debt service.

If the amounts are sale proceeds of the prior issue, they retain this characterization when placed in the escrow until they become transferred proceeds. In the meantime, they must be yield restricted to no more than 0.001 percent of the prior bond yield. After transferring, they become proceeds of the refunding issue, and are yield restricted to no more than 0.001 percent of the refunding issue bond yield.

If issuer equity or revenues from the project fund are deposited into the refunding escrow, they must be yield restricted to no more than 0.001 percent of the prior bond yield until spent. They never will become transferred proceeds because they were never proceeds of the prior issue.

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**Amounts in the Project Fund Can be Used to Make the Earliest Debt Service Payments on the Refunded Issue**

If the issuer determines that the amounts in the project fund are no longer needed for the project, then the amounts can be used to make debt service payments on the prior issue.

Spending these proceeds avoids yield restriction and the transferred proceeds rules.

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# Refunding Escrow

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## **Introduction**

If the original bonds were issued prior to 1986, and have already been advance refunded, then the refunded issue will have its own refunding escrow. This escrow (escrow #1) will be paying the debt service on the original bond issue, while revenues will be paying the debt service on the refunding issue.

When the second advance refunding is issued, another escrow (escrow #2) will be established. Escrow #2 will pay the debt service on the first refunding, while the revenues will pay the debt service on the second refunding issue.

---

## **Transferred Proceeds**

The transferred proceeds rules apply to refunding escrows in the same manner that they apply to other funds. Therefore, as soon as proceeds of the second refunding are used to pay principal on the first refunding, unspent proceeds of the first refunding will become transferred proceeds of the second refunding issue. Unspent proceeds include amounts in the escrow fund.

However, remember that in establishing an escrow fund, the issuer computed the exact amount necessary for debt service payments, and then proceeded to calculate the amount of the required initial deposit to the escrow based on the limited yield of the fund. Usually, the escrow is invested in SLGs. If these investments were to be sold and invested in SLGs with a lower yield (assuming that this is a “high-to-low refunding”), then the escrow would not generate enough earnings to meet the debt service payments.

Obviously, the issuer has a problem. The yield of the investments in escrow #1 cannot be lowered without jeopardizing its ability to meet the debt service requirements. The resolution to the issuer’s problem can be found in Treas. Reg. section 1.148-5(b)(2)(iv) which provides that all investments in all refunding escrows will be treated as a single investment having a single yield for purposes of IRC section 148. This means that the yields of both escrows can be blended.

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## Refunding Escrow, Continued

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**Transferred  
Proceeds  
Penalty**

However, this yield blending may not be enough to compensate for escrow #1's higher yield. In that case, the issuer can use the "transferred proceeds penalty" to lower the yield on escrow #2.

A discussion of the computation of the transferred proceeds penalty is beyond the scope of this course. A detailed explanation showing actual calculations is provided in Continuing Professional Education, Exempt Organizations, Technical Instruction Program for FY 1997, Tax-Exempt Advance Refunding Bonds - Some Basics, pages 149-187.

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# Sinking Fund

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## Introduction

If the prior issue had a sinking fund, these revenues and earnings will be available when the refunding bonds are issued. Some of the issuer's options regarding these amounts are:

- amounts can be used to pay earliest debt service payments on the refunded issue,
  - amounts can be deposited into the refunding escrow,
  - amounts can be deposited into the 4R fund, OR
  - amounts can be deposited into the sinking fund of the refunding issue.
- 

## Amounts Are Used to Pay Earliest Debt Service on Prior Bonds

Prior to the issuance date of the refunding issue bonds, these amounts are replacement proceeds and must be yield restricted to no more than 0.001 percent of the prior issue bond yield. As replacement proceeds, they will not become transferred proceeds.

If they are not deposited into any other fund, they retain this treatment until spent.

---

## Amounts Are Deposited into the Refunding Escrow

When these revenues are deposited into the refunding escrow, they retain their characterization as replacement proceeds of the prior issue. Thus, they are yield restricted to no more than 0.001 percent of the prior bond yield. As replacement proceeds, they do not become transferred proceeds.

---

## Amounts Are Deposited into the 4R Fund of the Refunding Issue

When these revenues are used as reserve funds of the refunding issue, they immediately become gross proceeds of the refunding issue. Although they are not subject to yield restriction (because they are in a 4R fund), they are subject to rebate as proceeds of the refunding issue.

---

## Amounts Are Deposited into the Sinking Fund of the Refunding Issue

When these revenues are made part of the sinking fund of the refunding issue, they immediately become gross proceeds of the refunding issue. Thus, they must be yield-restricted to no more than 0.001 percent of the refunding issue, and are subject to rebate as gross proceeds of the refunding issue.

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## Minor Portion

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### **Introduction**

Granted, the minor portion is not a separate fund. However, since it does provide for a certain amount of funds to be invested without yield restriction, the issuer is provided the opportunity to invest a portion of the bond proceeds without arbitrage concerns.

As mentioned previously, the regulations provide that both the refunded and the refunding issue can have their own minor portions. Prior to transfer, both of the minor portions will be as large as possible. As proceeds of the refunded issue become transferred proceeds of the refunding issue, the minor portion of the refunded issue will shrink. At the same time, the minor portion of the refunding issue cannot be enlarged. This means that the issuer has to be ever vigilant over the yield of the various investments. Obviously, those investments with the highest yield (generally transferred proceeds from the refunded issue) will be considered to be included in the minor portion, while lower-yielding investments will cease to be included.

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## Part IV: Abusive Arbitrage Devices in Advance Refundings

### Overview

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#### Introduction

IRC section 149(d)(1) provides that the interest on bonds described in sections 149(d)(2), (3), or (4) will not be tax-exempt.

IRC section 149(d)(2) describes private activity bonds, other than qualified 501(c)(3) bonds.

IRC section 149(d)(3) describes the limitations on the number of permitted advance refundings and the redemption rules.

IRC section 149(d)(4) provides that abusive transactions employed in an advance refunding are prohibited.

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#### Advance Refunding Issues that Employ Abusive Devices

Treas. Reg. section 1.149(d)(1)(b) provides that an advance refunding issue employs an abusive device and is described in IRC section 149(d)(4) if:

- the issue violates any of the anti-abuse rules under Treas. Reg. section 1.148-10,
- the issue fails to meet the general rebate requirements of section 1.148-3, OR
- any of the proceeds of the issue are invested in certain tax-exempt bonds, as described in Treas. Reg. section 1.149(d)(1)(b)(3).

#### Example

Proceeds of refunding bonds are allocated to amounts used to pay debt service on the refunded bonds. Accumulated revenues of the issuer are then free to be invested substantially longer than they would have been had there not been a refunding. The revenues are invested at a yield materially higher than the yield on the refunding bonds.

The method of allocation used by the issuer is a device within the meaning of IRC section 149(d)(4) because it enabled the issuer to obtain a material financial advantage that would not have been available absent the allocation. (See S. Rep. No. 99-313, 99<sup>th</sup> Cong., 1<sup>st</sup> Sess. (1986), Example 1 at 850).

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*Continued on next page*

## Overview, Continued

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**In This Section** This section contains the following topics:

Topic	See Page
Overview	E-131
Anti-abuse Under Treas. Reg. section 1.148-10	E-133
Anti-abuse Rules on Excess Proceeds of Advance Refundings	E-137
Mixed Escrows Invested in Certain Tax-Exempt Bonds	E-138
Hedge Bond Rules for Refunding Issuues	E-139

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## Anti-abuse Rules Under Treas. Reg. Section 1.148-10

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**Introduction**      The anti-abuse rules of Treas. Reg. section 1.148-10 apply to ALL tax-exempt bonds, not just advance refundings. Only section 1.148-10(c) applies solely to advance refunding issues.

Treas. Reg. section 1.148-10(a)(1) generally provides that bonds will be arbitrage bonds if an **abusive arbitrage device** (as defined in section 1.148-10(a)(2)) is used in connection with the issue.

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**Definition of Abusive Arbitrage Device**      Treas. Reg. section 1.148-10(a)(2) states that an action is an abusive arbitrage device if the action:

- enables the issuer to exploit the difference between tax-exempt and taxable interest rates to obtain a material financial advantage, AND
- overburdens the tax-exempt bond market.

Both must be present for the bonds to be arbitrage bonds.

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**Exploitation**      Treas. Reg. section 1.148-10(a)(3) provides that an investment of any portion of the gross proceeds of an issue at any time can exploit tax-exempt interest rates, even if the gross proceeds are not invested in higher yielding investments over the entire term of the issue.

(See Treas. Reg. section 1.148-10(d), Example 2.)

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## Anti-abuse Rules Under Treas. Reg. Section 1.148-10, Continued

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### **Overburdening the Tax-exempt Market**

An action overburdens the tax-exempt bond market if it results in any of the following, based on all of the facts and circumstances:

- issuing more bonds,
- issuing bonds earlier, OR
- allowing bonds to remain outstanding longer than is reasonably necessary to accomplish the governmental purposes of the issue.

An overissuance can be the result of reasonable expectations or actual events occurring after the issuance date.

---

### Example

City W issues bonds secured by revenues from the city's sewer system. A few years later, City W issues bonds to advance refund the initial bond issue. The refunding bonds have no required debt service payments until eight years after issuance. The refunding bonds are secured by revenues from the sewer system. Proceeds of the refunding bonds are placed into an escrow fund, a portion of which is used to pay debt service on the prior bonds until the redemption date. On the issuance date of the refunding bonds, the city invests the available sewer revenues in a forward contract at a yield which is materially higher than the yield on the refunding bonds. The contract is structured to provide amounts that are used to redeem the prior bonds.

The city's issuance of the bonds was not necessary, and therefore constituted an overburdening of the tax-exempt market. Further, the city's window advance refunding transaction enabled the city to exploit the difference between tax-exempt and taxable interest rates to gain a material financial advantage. **(See PLR 9746001 and Treas. Reg. section 1.148-10(d), Example 3.)**

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## Anti-abuse Rules Under Treas. Reg. Section 1.148-10, Continued

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### Consequences of Overburdening the Tax-exempt Market

If an issue overburdens the market, without exploiting the tax-exempt interest rates, Treas. Reg. section 1.148-10(b)(1) provides the following limitations:

- the definition of “materially higher” is equal to one-thousandth of one percent (0.001 percent),
- each investment is treated as a separate class of investments (no yield blending),
- yield reduction payments are not permitted,
- administrative costs can’t be deducted when computing yield, AND
- proceeds are not allocated to expenditures unless the “proceeds-spent-last” rule is satisfied, with certain restrictions.

Treas. Reg. section 1.148-10T(b)(2) provides that the above limitations will apply to:

- all of the gross proceeds if the overburdening was **reasonably expected** on the issuance date, OR
- the portion of the issue which overburdens the market if the action was **NOT reasonably expected**.

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## Anti-abuse Rules Under Treas. Reg. Section 1.148-10, Continued

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### Authority of the Commissioner to Clearly Reflect the Economic Substance of a Transaction

Treas. Reg. section 1.148-10(e) provides that, if an issuer enters into a transaction for a principal purpose of obtaining a material financial advantage based on the difference between taxable and tax-exempt interest rates in a manner that is inconsistent with the purposes of IRC section 148, the Commissioner may exercise her discretion to depart from the rules in the regulations as necessary to ensure that the economic substance of the transaction is clearly reflected. For this purpose, the Commissioner may, among other things, recompute yield and rebate.

**(See City of Columbus, Ohio v Commissioner, 106 TC 326 (1996). Although the Service prevailed in this instance, the case was lost on remand. See City of Columbus, Ohio v Commissioner 324 US App. D.C. 235, and City of Columbus, Ohio v Commissioner TC Memo 1998-135.)**

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### Authority of the Commissioner to Require an Earlier Date for Payment of Rebate

Treas. Reg. section 1.148-10(f) provides that if the Commissioner determines that an issue is likely to fail to meet the requirements of Treas. Reg. section 1.148-3 (regarding the general arbitrage rebate rules), AND that a failure to serve a notice of demand for payment on the issuer will jeopardize the assessment or collection of tax on interest paid or to be paid on the issue, the date that the Commissioner serves notice on the issuer is treated as a required computation date for payment of rebate for that issue.

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### Authority of the Commissioner to Waive Regulatory Limitations

On the other hand, Treas. Reg. section 1.148-10(g) provides that if the Commissioner finds that good faith or other similar circumstances so warrant, he may prescribe:

- extensions of temporary periods,
  - larger reasonably required reserve or replacement funds,
  - consequences of failures or remedial action under IRC section 148 in lieu of or in addition to other consequences of those failures, OR
  - other action.
-



## Anti-abuse Rules on Excess Proceeds of Advance Refundings

<b>Excess Gross Proceeds</b>	<p>Treas. Reg. section 1.148-10(c) provides generally that if an advance refunding issue has excess gross proceeds, an abusive arbitrage device is used and the bonds are arbitrage bonds.</p>
<b>Definition of Excess Gross Proceeds</b>	<p>Treas. Reg. section 1.148-10(c)(2) defines excess gross proceeds as all gross proceeds of an advance refunding issue that exceed an amount equal to one percent of sale proceeds of the issue, other than gross proceeds allocable to specific purposes.</p> <p>The specific purposes are itemized in the regulations and include such purposes as the payment of principal and interest on the prior bond and the payment of issuance costs of the refunding issue.</p>
<b>Other Special Rules</b>	<p>Treas. Reg. section 1.148-10(c)(4) contains special rules for crossover refundings.</p> <p>Treas. Reg. section 1.148-10(c)(5) contains special rules for gross refundings.</p>

# Mixed Escrows Invested in Certain Tax-Exempt Bonds

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## Introduction

Treas. Reg. section 1.149(d)(1)(b)(3) provides that an advance refunding issue is abusive if:

- any of the proceeds of the issue are invested in a refunding escrow in which a portion of the proceeds are invested in tax-exempt bonds and a portion of the proceeds are invested in nonpurpose investments,
  - the yield on the tax-exempt bonds in the refunding escrow exceeds the yield on the issue,
  - the yield on all the investments (including investment property and tax-exempt bonds) in the refunding escrow exceeds the yield on the issue, **AND**
  - the weighted average maturity of the tax-exempt bonds in the refunding escrow is more than 25 percent greater or less than the weighted average maturity of the nonpurpose investments in the refunding escrow, **AND** the weighted average maturity of nonpurpose investments in the refunding escrow is greater than 60 days.
- 

## Purpose of This Rule

Treas. Reg. section 1.149(d)(1)(b)(3) prevents issuers from taking advantage of the spread between long-term tax-exempt obligations and short-term taxable obligations. Generally, investments in tax-exempt obligations are not considered to be investment property under IRC section 148. Therefore, funding an escrow with long-term higher yielding tax-exempt obligations and short-term taxable obligations would allow an issuer to earn a yield (based on actual cash flows) in excess of the advance refunding bond yield.

**(See Preamble, T.D. 8345, Section I.)**

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# Hedge Bond Rules for Refunding Issues

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## **Introduction**

In Phase I of this course, Module C discussed the provisions of IRC section 149(g) regarding hedge bonds. That module discussed application of the hedge bond rules to original bond issues only. The hedge bond rules also have provisions which apply only to refundings and these provisions will be discussed in this section. Generally, the determination of whether or not the issue meets the hedge bond requirements depends on the original issue.

Treatment of the refunding issue differs depending on whether or not IRC section 149(g) applies to the refunded issue.

---

## **Applicability When IRC Section 149(g) Applies to the Refunded Issue**

IRC Section 149(g)(3)(C)(i) states that a refunding bond will be treated as meeting the requirements of IRC section 149(g) if the original bond met the requirements. For this section to apply, the provisions of IRC section 149(g) must apply to the refunded issue. IRC section 149(g) generally applies to bonds issued after September 14, 1989. Therefore, if the refunded issue was issued after this date, and none of the exceptions apply, then IRC section 149(g)(3)(C)(i) will apply to the refunded issue. Generally, the status of the refunded bond will just carry over to the refunding issue.

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## **Example**

City K issues \$25M of 8% bonds on November 1, 1989. Preliminary offering materials were mailed on September 15, 1989 and the bonds were sold on October 20, 1989. The bonds were not issued to finance a self-insurance fund. On July 1, 1993, interest rates fall to 3% and the city decides to refund the 1989 bonds. The city issues \$22M of 3% bonds solely to refund the 1989 bonds.

To determine whether or not the refunding issue (1993) meets the hedge bond requirements, you must first determine whether or not section 149(g) applied to the refunded issue (1989). To do this, you can use Figure E-7. Answering the first four questions tells you that section 149(g) applies to the 1989 issue. Therefore, the next step will be to continue with the flowchart to determine whether or not the 1989 issue is a hedge bond. If it isn't, then neither issue will be a hedge bond. If, however, the 1989 issue turns out to be a hedge bond, then the 1993 issue will also be a hedge bond.

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## Hedge Bond Rules for Refunding Issues, Continued

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### Applicability When IRC Section 149(g) Does *Not* Apply to the Refunded Issue

If you find that IRC section 149(g) does **not** apply to the refunded issue (usually because it was issued before the effective date), you should refer to IRC sections 149(g)(3)(C)(ii) and (iii). These sections contain the hedge bond provisions for refunded bonds that were issued prior to the effective date of IRC section 149(g). There are two separate provisions, and if the requirements of at least one of them are met, then the refunding issue will not be a hedge bond. These provisions are summarized below.

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### General Rule for Pre- Effective Date Bonds

IRC Section 149(g)(3)(C)(ii) states that a refunding bond will not be a hedge bond if all of the following are true:

- IRC section 149(g) does **not** apply to the **original** bond,
  - the average maturity date of the refunding issue is **not later than** the average maturity date of the refunded issue, and
  - the amount of the refunding bond does **not** exceed the outstanding amount of the refunded bond.
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## Hedge Bond Rules for Refunding Issues, Continued

### Example

County M issues \$15M of 4% bonds on September 1, 1993. The bonds were issued solely to refund \$20M 7% bonds issued on October 1, 1988. The maturity schedules for each issue are shown below:

1988 Issue		1993 Issue	
Due	Amount Maturing	Due	Amount Maturing
1989	\$1,000,000	1994	\$1,000,000
1990	\$1,000,000	1995	\$1,000,000
1991	\$1,000,000	1996	\$2,000,000
1992	\$1,000,000	1997	\$2,000,000
1993	\$1,000,000	1998	\$2,000,000
1994	\$1,000,000	1999	\$7,000,000
1995	\$1,000,000		
1996	\$1,000,000		
1997	\$1,000,000		
1998	\$1,000,000		
1999	\$1,000,000		
2000	\$1,000,000		
2001	\$2,000,000		
2002	\$2,000,000		
2003	\$4,000,000		

To compute the average maturity date, we first compute the "weighted average maturity" of each issue. The first step is to divide each maturity amount by 1,000. Then each quotient is multiplied by the number of years remaining until maturity. The sum of these products is then divided by the principal (also divided by 1000). That answer is the weighted average maturity of the issue. These computations are shown below:

*Continued on next page*

## Hedge Bond Rules for Refunding Issues, Continued

### Example (continued)

1988 Issue	1993 Issue
1,000,000/1,000 = 1,000 × 1 = \$1,000	1,000,000/1,000 = 1,000 × 1 = \$1,000
1,000,000/1,000 = 1,000 × 2 = \$2,000	1,000,000/1,000 = 1,000 × 2 = \$2,000
1,000,000/1,000 = 1,000 × 3 = \$3,000	2,000,000/1,000 = 2,000 × 3 = \$6,000
1,000,000/1,000 = 1,000 × 4 = \$4,000	2,000,000/1,000 = 2,000 × 4 = \$8,000
1,000,000/1,000 = 1,000 × 5 = \$5,000	2,000,000/1,000 = 2,000 × 5 = \$10,000
1,000,000/1,000 = 1,000 × 6 = \$6,000	7,000,000/1,000 = 7,000 × 6 = <u>\$42,000</u>
1,000,000/1,000 = 1,000 × 7 = \$7,000	
1,000,000/1,000 = 1,000 × 8 = \$8,000	
1,000,000/1,000 = 1,000 × 9 = \$9,000	
1,000,000/1,000 = 1,000 × 10 = \$10,000	
1,000,000/1,000 = 1,000 × 11 = \$11,000	
1,000,000/1,000 = 1,000 × 12 = \$12,000	
2,000,000/1,000 = 2,000 × 13 = \$26,000	
2,000,000/1,000 = 2,000 × 14 = \$28,000	
4,000,000/1,000 = 4,000 × 15 = <u>\$60,000</u>	
192,000	69,000
Weighted average maturity equals: 192,000/20,000 = 9.60 years	69,000/15,000 = 4.60 years

Now that we have the weighted average maturity of each issue, we simply add it to the issuance date to find the average maturity date, as follows:

October 1, 1988  
+ 9 yrs 7 mos 6 days  
May 7, 1998

September 1, 1993  
+ 4 yrs, 7 mos, 6 days\*  
April 7, 1998

\* To convert .60 years to days and months:

$$360 \times .60 = 216 \text{ days: } 216/30 = 7.20 \text{ months: } .20 \times 30 = 6 \text{ days}$$

The weighted average maturity of the refunding issue is **not** later than the weighted average maturity of the refunded issue.

Additionally, the amount of the refunding bond (\$15M) does not exceed the outstanding amount of the refunded bond (\$16M).

Lastly, IRC section 149(g) did not apply to the refunded bond. Therefore, since all of the requirements of IRC section 149(g)(3)(C)(ii) are met, the refunding bonds are not hedge bonds.

*Continued on next page*

## Hedge Bond Rules for Refunding Issues, Continued

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### Special Rule for Refunded Bonds Meeting Spending Tests

If the bonds cannot meet the general rule of IRC section 149(g)(3)(C)(ii), then IRC section 149(g)(3)(c)(iii) may apply. This section provides that the refunding bond will **not** be a hedge bond if all of the following are true:

- IRC section 149(g) does **not** apply to the **original** bond,
  - the issuer reasonably expected that 85 percent of the spendable proceeds of the **original** issue would be spent for governmental purposes within a five-year period, but would **not** be spent within a three-year period (the three-year and five-year periods begin on the issuance date), **and**
  - at least 85 percent of spendable proceeds of **all prior original issues** were **actually spent** before the date the refunding bonds are issued.
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### Additional Rules for Refunding Issues

Treas. Reg. section 1.149(g)-1 contains two additional provisions regarding refundings. These provisions apply to bonds issued after June 30, 1993, and to bonds issued earlier **only** if the issuer elected to apply the 1993 regulations retroactively. These provisions are summarized below:

- Treas. Reg. section 1.149(g)-1(c)-(1) provides that if a refunded bond escaped hedge bond status because 95 percent of net proceeds were invested in non-AMT bonds, then the refunding bond must invest 95 percent of gross proceeds in non-AMT bonds in order to avoid hedge bond status. (For this test, gross proceeds does NOT include any proceeds deposited into the refunding escrow for the refunded bond.)
  - Treas. Reg. section 1.149(g)-1(c)-(2) states that a refunding bond will be a hedge bond unless there is a significant governmental purpose for the issuance of the bond. Examples of this are debt service savings, and relief of burdensome covenants.
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## Hedge Bond Rules for Refunding Issues, Continued

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**Determining  
Status of a  
Refunding  
Bond**

The status of the refunding issue generally is derived from the original issue. Therefore, you must test the original issue(s) to see if they meet the requirements of section 149(g). To do this, you will need to refer to both Figures E-7 and Figure E-8.

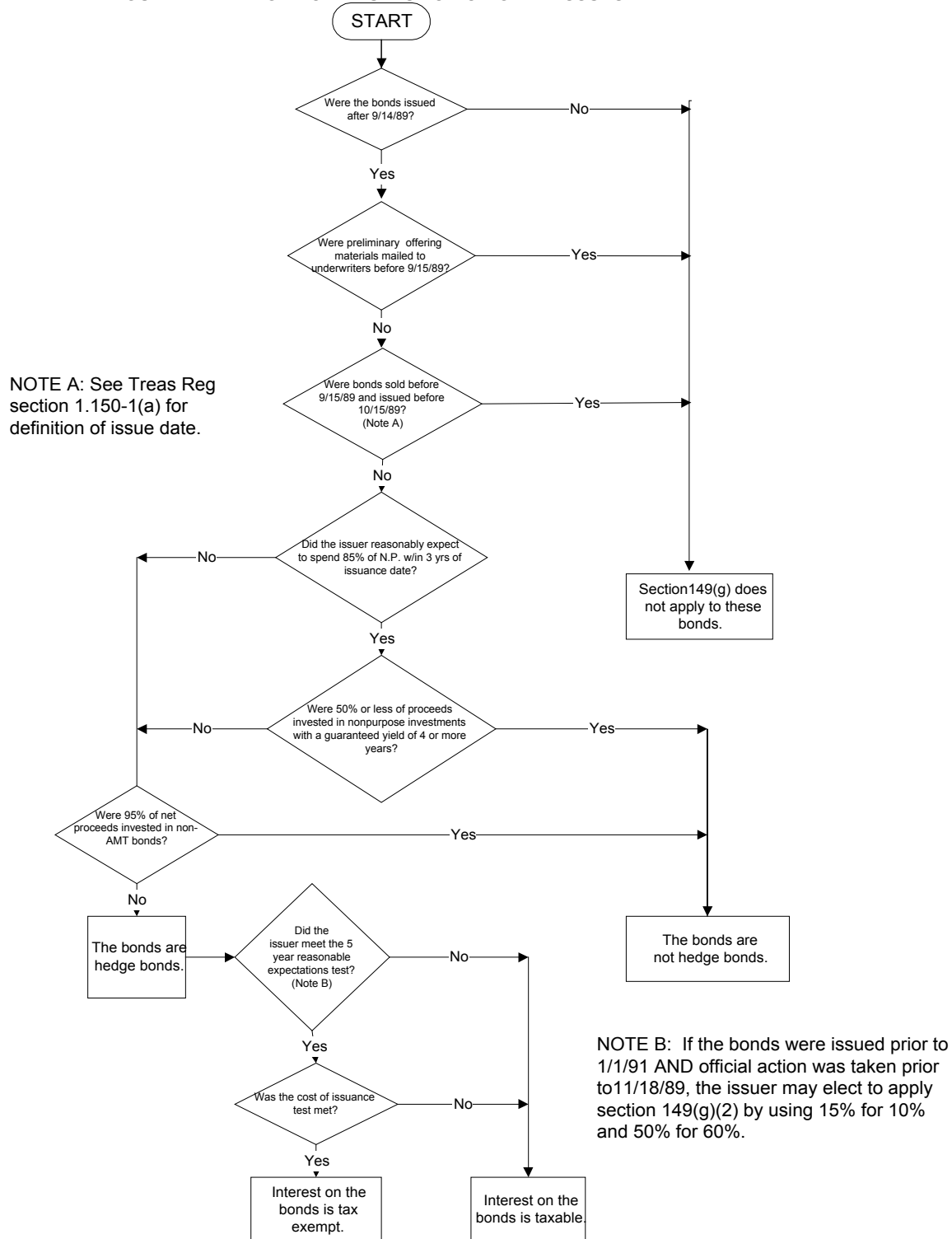
Remember that this determination depends on whether or not the original issue was subject to IRC section 149(g). As soon as you know that the bond is a refunding issue, you should request documents for the original issue.

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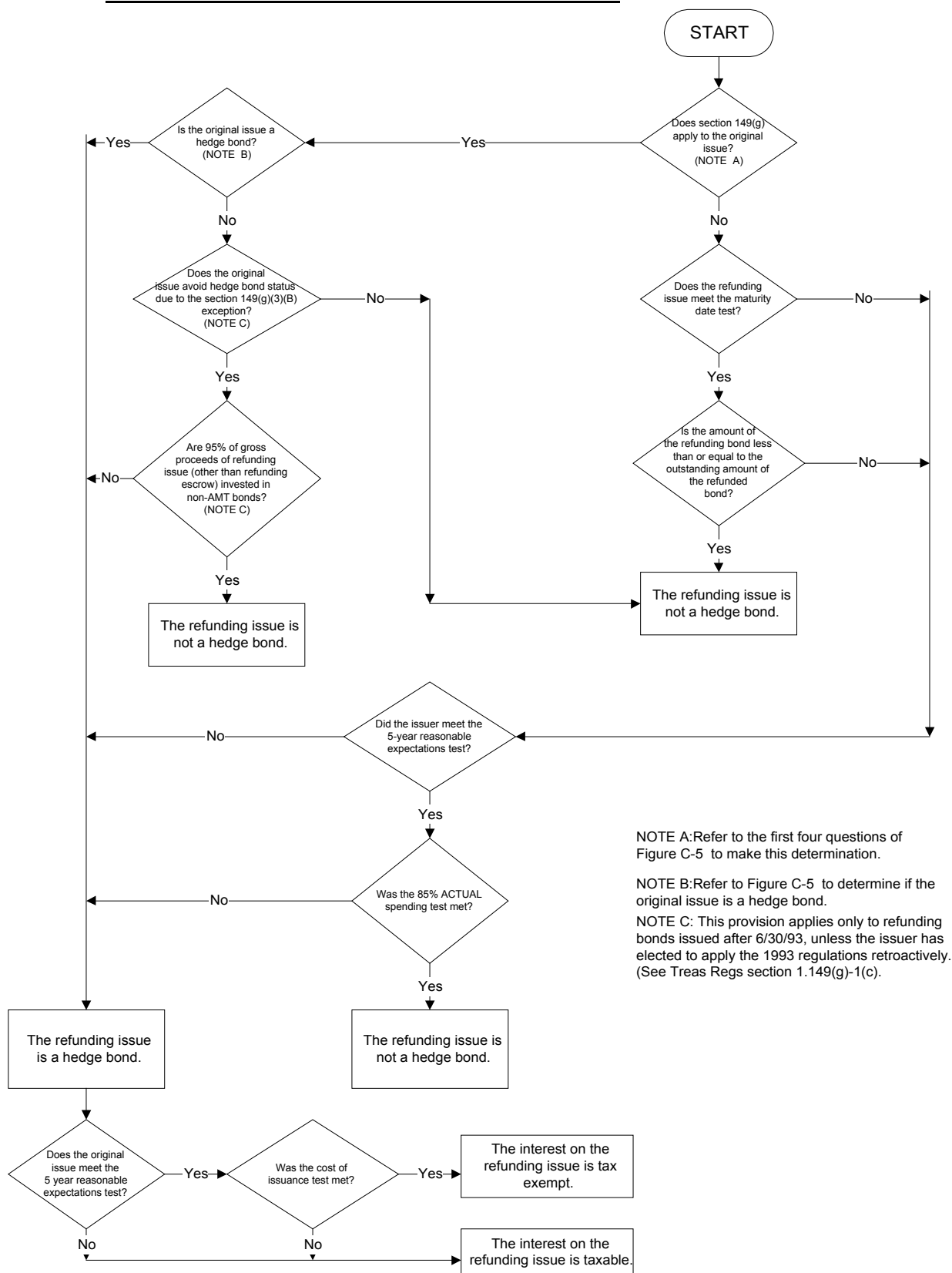
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**FIGURE E-7: HEDGE BOND RULES FOR ORIGINAL ISSUES**



**FIGURE E-8: HEDGE BOND RULES FOR REFUNDING ISSUES**



# Summary

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## Review of Module E

There are two kinds of refundings. A bond is an advance refunding if it is issued **more than 90 days** before the redemption of the refunded bond. A bond is a current refunding if it is issued **less than 90 days** before redemption of the refunded bond.

The rules governing advance refundings can be found in various sections of the Code and regulations. The general rules that define and limit advance refundings are in IRC section 149(d) and the accompanying regulations. Certain definitions are found in Treas. Reg. section 1.150-1(d). The arbitrage rules are found throughout Treas. Reg. sections 1.148-0 to 11. The provisions of IRC section 146 and 147 apply only in certain cases. Lastly, whenever a bond is issued after August 15, 1986 to advance refund a bond issued before August 15, 1986, the Transition rules of Section 1313(b) of the TRA 1986 need to be consulted.

IRC Section 149(d) provides that:

- Only governmental and qualified 501(c)(3) bonds may be advance refunded.
- Original bonds issued prior to 1986 may be advance refunded twice.
- Original bonds issued after 1985 may be advance refunded only once.

Advance refunding issues generally establish three different funds:

- escrow,
- reasonably required reserve and replacement fund, and
- bona fide debt service.

Once proceeds of the refunding issue are used to pay principal on the prior issue, any unspent proceeds of the prior issue transfer to the refunding issue.

When proceeds other than refunding issue proceeds are deposited into the refunding escrow, the escrow becomes subject to the mixed escrow rules.

The multipurpose allocation rules allow an issuer to divide a single issue used for different purposes into separate issues.

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## Summary, Continued

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**Review of  
Module E,  
continued**

The general arbitrage rules apply to reserve and bona fide debt service funds, with additional special rules applying to reserve funds. Since escrows are only found in refunding issues, special rules apply to them.

The temporary period for proceeds of a refunding issue varies depending on the type of proceeds.

The yields of yield-restricted nonpurpose investments can be blended for arbitrage purposes, but the yields of non-yield-restricted investments cannot be included with them.

Proceeds of advance refunding issues can qualify only for the small issue exception to rebate or the six-month spending exception. Yields of all investments are blended for rebate purposes. A special rule allows the escrow and a sinking fund to be treated as a single investment with a single yield for rebate purposes.

Abusive devices are described in Treas. Reg. section 1.149(d)(1)(b).

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**Preview of  
Module F**

Module F explains how to determine which set of regulations applies to the issue.

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## Case Study

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### Facts:

On January 1, 1985, City A issues \$35M of 20-year bonds with varied interest rates at a yield of 10.15681 percent. Interest is payable in May and November. The bonds maturing on and after November 1, 1995 are subject to optional redemption on November 1, 1995 at a price of 102%. Bonds maturing on and after November 1, 1996 are subject to optional redemption at par. The bonds are issued to fund improvements of city property, such as roadways, bridges, public recreation areas, traffic signals, and cemeteries. The average maturity of the issue does not exceed 120 percent of the average reasonably expected economic life of the financed facilities. The bonds are secured by the full faith and credit of City A, and the city's general revenues have been pledged to pay the debt service. As of January 1, 1994, the bonds are still outstanding, and have not been defeased.

The debt service schedule is shown in **Table 1.**

A schedule of sources and uses of gross proceeds is shown in **Table 2.**

A schedule of fund balances from January 1, 1994 through March 1, 1996 is shown in **Table 3.**

Present Value of Debt Service is on **Table 4.**

Calculation of Bond Yield is on **Table 5.**

On January 1, 1994, the City decides to issue \$59.5M 20-year bonds with varied interest rates and a yield of 6.51 percent. Part of the proceeds will be used to refund the 1985 issue on November 1, 1995, while the remainder will be used for waterway and public building improvements. Interest is payable in March and September. The bonds are not subject to redemption prior to maturity.

The debt service schedule is shown in **Table A.**

A schedule of sources and uses of gross proceeds is shown in **Table B.**

Computation of bond yield on the entire issue is in **Table C.**

Computation of bond yield on the refunding portion of the issue is in **Table D.**

### REQUIRED:

Review the tables and answer the following questions about the issues.

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## Case Study, Continued

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**Questions:**

1. What type of bonds are the 1985 bonds - governmental, qualified private activity, or private activity bonds?
  2. What type of bonds are the 1994 bonds - governmental, qualified private activity or private activity bonds?
  3. Determine if the 1994 issue is a current or advance refunding of the 1985 issue.
  4. How many times can the 1985 bonds be advance refunded? What are the limits on current refundings of the 1985 issue?
  5. How many times can the 1994 bonds be advance refunded? What are the limits on current refundings of the 1994 issue?
  6. Determine if the TRA 1986 Transition rules apply to the 1994 issue.
  7. Determine the required redemption date of the 1985 bonds under IRC section 149(d)(3)(B).
  8. Determine the temporary periods for proceeds of both issues.
  9. Determine the maximum yield that can be earned on the gross proceeds of the 1994 issue in order to comply with yield restriction rules.
  10. Discuss the treatment of the unspent proceeds of the 1985 issue for arbitrage purposes.
  11. Calculate the amount of transferred proceeds on November 1, 1994 and November 1, 1995.
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